

# **Community-based governance in social-ecological systems: an inquiry into the marginalisation of Landcare in Victoria, Australia**

Thesis presented for the degree of  
Doctor of Philosophy,  
Murdoch University  
2011

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## Declaration

I declare that this thesis is my own account of my research and contains as its main content work which has not previously been submitted for a degree at any tertiary education institution.

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## Abstract

Environmental governance regimes affect the adaptive capacity of social-ecological systems. By enabling actors with differing knowledge, values and interests to understand complex problems, agree on solutions and integrate their actions, network forms of governance increase adaptive capacity, but are they able to influence the agenda and approach set by higher levels within governance regimes? This research investigated the influence of Landcare Networks within natural resource management (NRM) in Victoria, Australia. Landcare groups are voluntary associations through which private landholders cooperate to improve their local environment, and Landcare Networks are federations of those local groups. In action research over twelve months, peer groups of staff and members of management committees of Landcare Networks met to improve the effectiveness and influence of Networks in landscape change.

Participants identified a breakdown in collaboration between government NRM staff and Landcare Networks. Regional NRM bodies, located between state government agencies and Landcare Networks, treated the latter as implementers of government priorities, rather than decision-makers at landscape level. Participants attributed this marginalisation to a policy of targeting public investment to biophysical priorities, and to differences in assumptions of agency. Participants assumed that community action was essential to landscape change; staff in government programs seemed to participants to assume that government initiatives drove change. Analysis of peer group discussion identified a governance practice rooted in a discourse of community action, facilitating action in relationships of mutual responsibility and seeking to maintain the momentum of change across the social-ecological system.

The process of inquiry in action led participants to examine and change some of their assumptions, a change theorised as a process of reframing in which doubt leads to examination of failure and a search for more effective action. This suggests that

communities of practice contribute to reframing within multilevel governance regimes, alongside mechanisms such as shadow networks and bridging organisations. The findings also confirm participatory action research as a methodology for investigating governance regimes while enabling action to improve them.

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## **Acronyms and abbreviations**

CMA	Catchment Management Authority
DSE	Department for Sustainability and Environment
NAP	National Action Plan for Water Quality and Dryland Salinity
NHT	Natural Heritage Trust
NRM	natural resource management
RLCs	Regional Landcare Coordinators

## **Acknowledgements**

My thanks to my co-researchers, the staff and members of management committees of nine Landcare Networks across Victoria, in the first two years of the Landcare Network Readiness Project, and another five in the third year. They are serious and determined people with a commitment to community action, who took up the opportunity to inquire and question. I'm glad to have had the chance to work alongside them. Managers and staff at the Landcare Unit in the Department of Sustainability and Environment knitted together the organisational support that such a project requires. Dave Lucas set up the Readiness Project and gave me the freedom to take it where it wanted to go. He also kept in touch every now and then through the long period of writing, up-dating me on the ongoing drama of NRM policy.

My primary supervisor, Susan Moore, first tried to talk me out of the idea of doing PhD research, but took me on when I persisted. She has provided clear direction right throughout, and comprehensive, prompt and affirming feedback at each step. She has stayed with me in the adventure of the research. Bob Dick has also supervised, asking good questions and listening attentively to my long answers. His diligence in inquiry and the directness of his own writing have provided me with a benchmark. Margaret Jacobs stepped in to edit the last two drafts, helping make what appears on the page closer to what I mean.

Sustaining the persistent demands for inquiry and clarity has only been possible with the support of friends. Ilze Valikovs helped me get started. The peer group of consultants with whom I've met for many years have given me a space to reflect on what the research process has meant for me as a learner and agent of change. Alice Cummins has been my close companion in critical engagement. Finally, as I pursued this inquiry, a few people kept me company in spirit. They are people who have worked to improve the way we govern our common life, usually as a sideline to whatever work role they were in at the time. The vicissitudes of organisational and political life have stripped them of illusion and vain hopes, but they are still prepared to make the most of each opening as they find it. This is for them, and those like them.

## Chapter 1 Genesis of the research

Environmental crisis is a crisis of governance. Steady decline in the health of ecosystems worldwide is not only a consequence of patterns of human use of the environment, but of the institutions which govern human activity. Regimes of environmental governance are the web of formal and informal institutions that form across jurisdictional and spatial levels (Young, 2002a). Regimes change slowly. There is a need not just for more effective ways to make and implement decisions for the common good, but for an understanding of how to change governance regimes.

In what is known in Australia as natural resource management (NRM), Landcare groups and Landcare Networks create a space where community and government interests meet to organise collective action and to improve land management practices. Landcare groups are voluntary associations of private landholders who cooperate to improve their local environment. Landcare Networks are voluntary federations between Landcare groups. They are managed by a committee of local group representatives and typically employ staff to organise projects and a Coordinator to broker relationships with government programs and other organisations interested in environmental outcomes.

The Landcare Network Readiness Project (Readiness Project), initiated by the Landcare Program of the Department of Sustainability and Environment (DSE) in the State of Victoria in south-eastern Australia, set out to support Landcare Networks becoming more effective and influential in landscape change. The project sponsors saw opportunities for these community-managed organisations to take on some of the decision-making needed in NRM planning at landscape level, a level located somewhere between regional planning for large river catchments, and district and property level activity within sub-catchments. However, if they were to take a bigger role, Landcare Networks would need to develop their organisational capacity and win more recognition of their capacity within the NRM governance regime.

This doctoral research had its origins in the Readiness Project, which engaged peer groups of Landcare Network staff and members of committees of management in action research to improve their practice. It was shaped as well by my own interest in participatory methods of decision making and design of action, which had been central to my activity as a facilitator and consultant in NRM. Once underway, the direction of the research was influenced by the literatures on governance and specifically governance in social-ecological systems.

Table 1.1 provides an overview of the structure of the thesis. The first chapter establishes the relationship between the core action research of the Readiness Project and the thesis research, and locates the research in the field of environmental governance. As action research, the research design was emergent (Dick, 2006; Reason and Bradbury, 2006). It was led by the interests of participants from Landcare Networks, with questions and methods emerging as understandings and goals changed, and the literature playing a supporting role. The dissertation follows the process of this inquiry, showing how findings early in the research raised new questions and initiated new cycles of inquiry. Relevant questions in research on Landcare, governance and participatory methodology are canvassed in Chapters 2, 3, and 4 respectively; subsequent chapters extend the inquiry into the field of practice and, following issues raised in the action research, further into the literature.

Table 1.1 Outline and structure of the thesis

<b>Chapter 1 Genesis of the research</b>	Describes the negotiation of the core action research with the sponsoring government agency, and my interest as a consultant and facilitator in change in governance. Establishes the relationship between the core action research and the thesis research, and describes the research questions that developed through three cycles of inquiry.
<b>Chapter 2 Landcare and NRM in Australia</b>	Provides an orientation to NRM in Australia, the development of Landcare and the impacts of recent regionalisation, and reviews research on Landcare and its role in governance.

<b>Chapter 3 Network forms of governance in social-ecological systems</b>	Reviews the literature on network forms of governance, and governance of social-ecological systems, identifying the three questions relevant to the core action research, and to which the dissertation responds.
<b>Chapter 4 Research methods</b>	Outlines features of the research as an inquiry into practice, describes methods of data collection and analysis, and highlights steps taken to ensure the trustworthiness of findings.
<b>Chapter 5 Landcare Network perception of NRM governance</b>	Sets out the critique developed in the peer groups of the place of Landcare Networks in NRM governance, confirming previous research on the impact of regionalisation in NRM and the lack of influence of Landcare organisations.
<b>Chapter 6 The governance practice of Landcare Networks</b>	Analysis of peer group discussion shows that Landcare Networks build on approaches to change developed in local Landcare groups, but move their focus to maintaining the momentum of change across the social-ecological system at landscape level.
<b>Chapter 7 The discourse of community action</b>	Describes a discourse of community action embodied in the governance practice of Landcare Networks, compares this with the discourses of collaborative planning and scientific management, and provides an account of marginalisation of the discourse of community action in the last decade of NRM in Australia.
<b>Chapter 8 Doubt and the dynamics of reframing</b>	The concepts of frames and reframing are used to make sense of the changes made by peer groups as they investigated their marginalised position. Critical reflection with peers allowed doubts about Landcare's partnership with government to surface. Investigation of failure and the strengthening of commitment to improving the influence of Landcare Networks led to a challenge to the established frame of local action on local problems. New theories of action began to develop.
<b>Chapter 9 Opening the space for inquiry in action</b>	Examines what enabled the investigation of governance within the peer groups. Facilitation is characterised as facilitation with activist intent, and establishment and maintenance of the research project as improvisation at the boundary between the inquiry space and its organisational setting.
<b>Chapter 10 Conclusions and implications</b>	Discusses the significance of the findings in relation to governance of social-ecological systems, limitations in the research methods, and implications of the research for NRM in Victoria and the practice of adaptive governance generally.

## **Opportunities at landscape level**

When design of the Readiness Project began in 2005, NRM in Victoria faced several pressures for improved governance processes. Despite gains in some areas, public investment in NRM was seen to be failing to produce marked improvement in environmental condition (DSE, 2005). Political attention to environmental issues had been sharpened by a nine year drought, urban-rural conflicts over water allocation and rising community concern about climate change. Demographic change was bringing new interests and values into rural communities, challenging the idea of farming and farmers as the natural and rightful inhabitants of the rural landscape (Barr, 2003; Lane et al., 2004).

In 1995, the Victorian Government had created ten Catchment Management Authorities (CMAs), giving them responsibility for catchment planning at regional level. Figure 1.1 page 9 shows the boundaries of CMAs, and the bioregions of Victoria. From 2002, an agreement between the Australian and Victorian Governments gave these bodies responsibility for deciding where public investment in NRM should be directed within each region. By 2005, regional bodies had developed targets and priorities, but implementation was poorly integrated within landscapes. Assessment of environmental condition, target setting, program design and implementation were still organised separately around 'land', 'water', and 'biodiversity', each being approached as a distinct 'asset'. Projects for asset often operated without taking account of related assets within an ecosystem, and without integrating with local community networks and organisations.

The idea of projects with outcomes for more than one program area was being investigated by DSE, and funders were considering a shift to multi-year funding of integrated landscape level projects. There was also growing interest in purchase of ecosystem services from individual landholders, for biodiversity, water quality, salinity abatement and carbon sequestration. Trials of tender processes had raised critical questions. What was landholders' minimal duty of care for the environment? How could

this be specified, when these practices varied from landscape to landscape? How could payment for ecosystem services be integrated with existing voluntary change mechanisms like Landcare (Phillips and Lowe 2005), in which governments and local volunteers had invested for two decades?

Integration of policy and programs at landscape level was emerging as an opportunity for Landcare organisations. However, landscape level in the governance regime was not yet defined. 'Landscape' itself is an ambiguous and contested concept. In popular usage, it connotes the way the country looks, the scenery. For biophysical scientists, a landscape is an area of land of kilometres-wide extent, where ecosystems and land uses are repeated in similar form and share similar geomorphology, climate and disturbance by human activity (Forman 1995). Landscapes are social and ecological phenomena intertwined in a process of mutual influence and adaptation (Walker et al., 2006).

Landscapes are also economic phenomena: Beilin (2001) notes that long before the idea of ecology or scenery developed, land 'scapes' were understood as created by farming practices. In south-eastern Australia, a dense social ecology shapes the physical landscape. Practices of cropping, dairying, horticulture, forestry and intensive animal production have shaped the landscape, and continue to evolve in response to economic and technological change. Patterns of settlement change, social networks between community segments and industries grow or fall away, and transport and water infrastructures change with new technologies and political priorities.

Within the spatial hierarchy of NRM governance, landscape level sits between region and locality levels. Regions are often defined by major river catchments, with areas in Victoria ranging from 13,340 km<sup>2</sup> in the Corangamite region in the closely settled south-west of the State, to 39,000 km<sup>2</sup> in the low rainfall Mallee region of the north-west. Regional boundaries disregard local government areas and draw together existing community organisations within catchments, but are also administrative conveniences set to keep the

number of administrative units manageable for governments (Marshall, 2008). The Corangamite CMA, for example, is made up of four adjacent river basins, whose residents have little identification with the Corangamite region (Wallis Consulting Group and Scarlet Consulting, 2008).

By contrast, Landcare groups form around the interest of landholders in particular localities. Their boundaries are based on local identification with place, an identification shaped by land use, social background and history, and by landform (Ewing, 1997). For example, the Bullengarook Landcare Group, on the edge of the ranges north-west of Melbourne, takes in an area of approximately sixty hectares; the Sutton Grange Landcare Group, in drier country sixty kms to the north, covers 200 hectares. Not all localities have a Landcare group, but in 2004, there were 721 local Landcare groups across Victoria (Curtis and Cooke, 2006).

At anywhere from 20,000 to 300,000 km<sup>2</sup>, Landcare Networks operate at what I will call *landscape* level. As voluntary federations of local groups, they are an emergent social structure rooted in people's sense of a shared landscape. The choice to federate as a Network is based in part on social recognition by those living and working in a geographic area of distinctive patterns of ecosystems and land use that have been called landscapes (Brunckhorst and Reeve, 2006). In Victoria there are now sixty-two Landcare Networks, and around 50% of local NRM groups are part of a Landcare Network (Curtis and Sample, 2010).

In 2005, Landcare Networks had little formal recognition and authority within NRM planning. CMAs viewed them as a valuable connection to local communities, but did not give them a particular role in regional decision-making. Interest in multiple outcome projects and purchase of ecosystem services had implications for governance at landscape level, but policy staff in the DSE Division of Natural Resources had little knowledge of what Landcare Networks were doing. The anecdotal evidence was that Landcare



Networks had little understanding of policy and were disenchanted with CMAs, seeing them as preoccupied with regional planning that had little impact on local communities. Local Landcare groups found regional NRM planning difficult to understand and left it to their Network facilitators to handle 'government' while they got on with 'real work'.

### **Negotiating the project design**

Victoria has been unusual amongst state governments of Australia in supporting Landcare organisations through specific policy and funding. The Landcare and Community Engagement Unit (Landcare Unit) was housed in the DSE, an agency with diverse responsibilities: biodiversity conservation, waterways health, management of public land including State Parks, management of state forests, coastal management and bushfire management. The five-person Landcare Unit managed grants programs for Landcare groups and Networks and funded Regional Landcare Coordinators in each CMA. It also had a role in maintaining support for Landcare amongst funders and program managers in DSE, and Australian Government funders in the (then) Department of Environment and Heritage.

The Statewide Landcare Coordinator in the Landcare Unit saw the potential for Landcare Networks to take a stronger role in regional NRM planning. The Coordinator initially requested development of an assessment framework for Landcare Network capacities, and invited me to review the literature. Based on that review, and five case studies of the way Landcare Networks developed their capacity, I concluded that while there were assessment measures that could be adapted to Landcare Networks, attempts by DSE to measure Landcare Network capacity would very likely be met with lack of interest or active resistance. Further, even if measures of capacity were developed, the problem of how to develop those capacities would remain. I proposed that one way to assess and develop capacity would be to support Landcare Networks in a process of action research, in which each assessed their own situation, decided what they wanted to develop, and

took action. I argued that this methodology would bring rigour to the inquiry while leaving participating Networks in charge of its direction. Such a methodology was also suited to work in complex systems where action must be taken despite uncertainty (Argyris, 1990). What might develop in the institutional context was far from clear; action research would allow flexibility in negotiating the direction of the project.

The State Landcare Coordinator (from this point on the *Project Manager*) accepted these arguments. He negotiated funding contributions from two other DSE policy units – the Land Management Branch and the Land Policy Unit in the Sustainable Rural Landscapes program – to engage wider attention to the Project. We agreed on two strategies for the Project. The first was the use of peer groups formed from coordinators and facilitators of Landcare Network and community members of Network management committees. These would bring together people who normally had little opportunity to talk at depth about Network development. Two peer groups were formed, one in West Gippsland of four Networks and one in south-west Victoria of five, based on their interest and with a view to ensuring diversity in the types of Landcare Networks.

Figure 1.2 (page 10) shows the location of participating Landcare Networks within each of the peer groups, and the development task each chose to work on in their peer group. The stated purpose was that participants would make their Networks more effective and influential in landscape change. Peer groups met once a month for six months, then for two further quarterly sessions. They set their own agenda and were facilitated by myself as consultant to the Project. The assumption was that this open agenda would mobilise Landcare Networks as competent and assertive players in the wider NRM system, able to take up the opportunities emerging at policy level – if this is what they wanted to do.

The Project's second strategy was to build relationships between Landcare Networks and policy staff in DSE. I would report what participating Landcare Networks were doing and their perceptions of barriers and constraints in the governance system; the Project

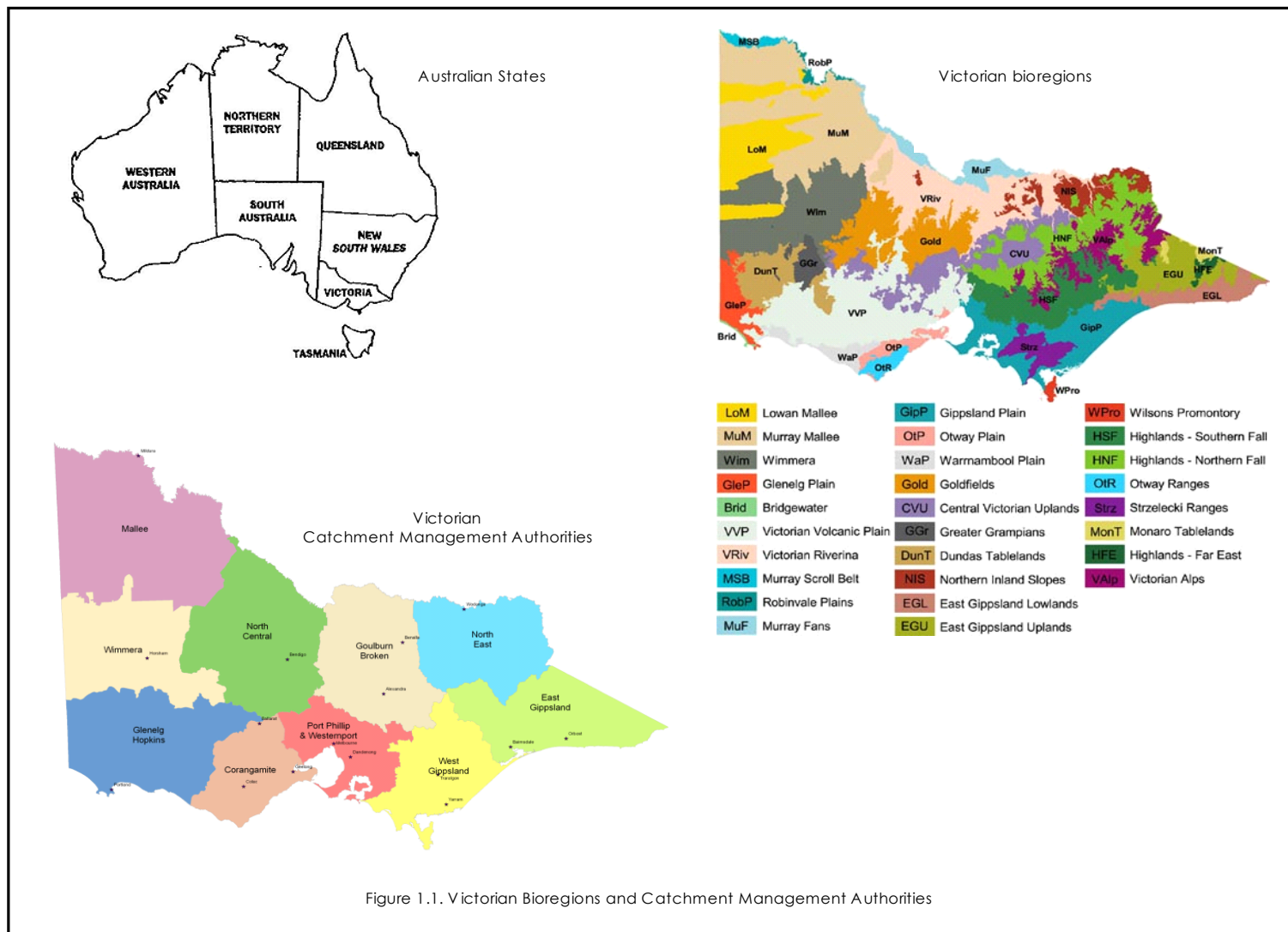


Figure 1.1. Victorian Bioregions and Catchment Management Authorities

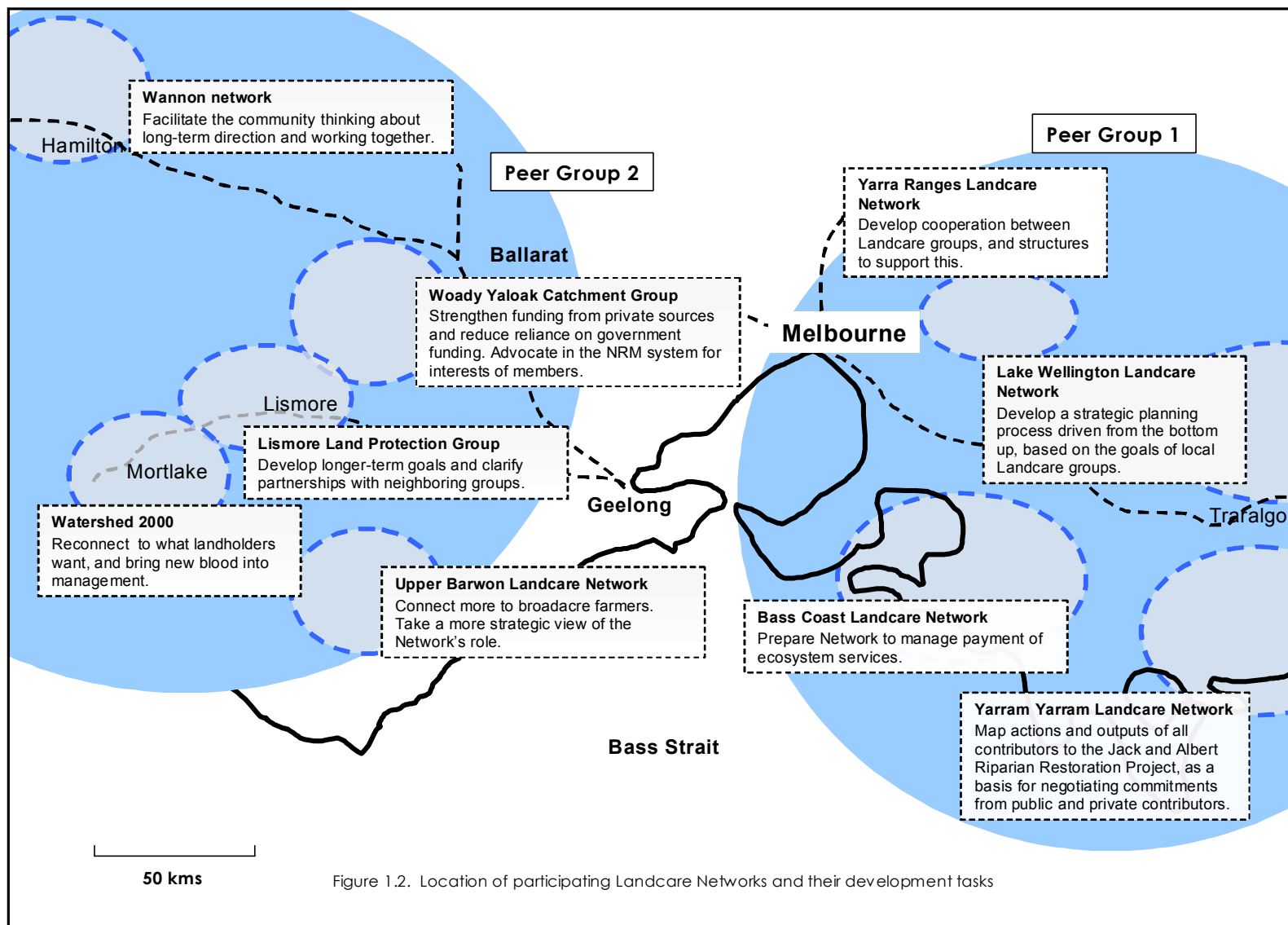


Figure 1.2. Location of participating Landcare Networks and their development tasks

Manager would use this in his advocacy for Landcare. I would connect members of the peer groups to specific policy staff with interests related to their Network. Stronger relationships between Landcare Networks and policy staff would support innovation in governance at landscape level, particularly if policy developments requiring landscape-level decision making attracted stronger government support. These relationships might offer an alternative line of influence alongside Landcare Networks' relationship with CMAs, which were preoccupied with 'bedding down' regional planning processes and considered unlikely to want to shift authority to Landcare Networks. The Project Manager and I decided not to draw much attention to the Project until the peer groups were underway and had developed their own direction. We wanted to be ready for opportunities that might arise in governance policy, but not make claims ahead of these opportunities.

Finding willing Landcare Networks for the first peer group took at least two discussions with each of a dozen prospective Networks. Staff and committees of management were wary of a centrally-imposed agenda that did not respect their autonomy. One participant challenged directly:

.... we spend a lot of time wasting time because someone wants to tick a box. They are making policy above us, to say 'we want you want to jump through these hoops' which has nothing to do with our priorities. So are you just box ticking? [laughter] Are you a box tucker? ... so they can then say 'Oh yes, we've sent the facilitator in, we talked to all those Landcare groups, now let's go make our policy.'

For management committees of Networks, staff and volunteer time was too precious to waste on talk: Networks would only participate if they could set the agenda and work on a pressing development task. I had planned to begin with a review of Network history, then future goals of the Network, assessment of strengths and weaknesses and eventually the choice of a development task. This was set aside in favour of work on a development task agreed to by each Landcare Network management committee.

A compelling benefit for those who chose to participate was the opportunity to work with staff and management from other Networks. Once staff and community leaders were sure that they had control of the agenda and could talk freely, two parallel agendas emerged: improving the effectiveness of each Network, where we addressed what participants had done recently and proposed to do next in relation to the development task; and Landcare's place in the governance system, where we pursued the shared concern with improving Landcare's influence. The two agendas — one of effectiveness and one of influence — fed each other. Discussion about a Network's development task often broadened to discussion about the wider governance system, as participants in different Networks described their experience with similar issues or began to debate what could be done to deal with the specific constraints in the focal Network's situation. Discussion about the wider governance system then had implications for specific development tasks.

As the facilitator, my task was to support participants working on each of these agendas. As consultant to the Readiness Project, my task was to manage the balance between the two agendas, so participants could follow their interests while the Project met its required outputs. The two roles shared common ground, but distinct affiliations. As a facilitator, I had a strong commitment to inquiry and action by the peer groups; as a consultant, my commitment was to the Landcare Unit. The decision to add the role of researcher to those of consultant and facilitator came when it became clear that two years of funding for the Readiness Project was likely. This presented an opportunity to pursue my longstanding interest in change in governance.

### **The research in the context of my practice**

The decision to undertake PhD research arose from my discontent with the slow evolution of decision-making for the common good. Working in the interface between government, industry and community, I had used participatory processes to build shared understanding and collaboration in action. I found myself disappointed, infuriated, and ultimately perplexed that mainstream decision-making — despite the rhetoric of

collaboration – remained dominated by top-down decision-making. I wanted to understand why change in governance was so slow.

The Readiness Project offered an opportunity to increase the tempo of change, and the thesis research offered a way to understand the constraints and drivers of change. To the research, I brought experience-based expertise in design and facilitation of processes of learning within work groups and organisations, and between organisations. A selective chronology will trace the stepping stones of my interest in environmental governance. I follow this with five assumptions about change in social systems that I took with me into the PhD research.

1952–1969    My father left school at fifteen and apprenticed as a fitter and turner. He returned to night school to complete secondary schooling and then to Melbourne University, training first as a teacher, then as a social worker. He worked as a manager of social welfare organisations at progressively more senior levels, went to the University of New South Wales for seven years, then to the national Department of Social Security as second-in-command. My mother supported him. He often talked at home about what was happening at work. Growing up in such a family, I came to understand organisations as exciting places, dynamic systems that could influence society.

1970–1974    The undergraduate social work course I enrolled for at the University of New South Wales had just been rebuilt from the ground up. I learned to think of interaction in systems (families, groups, organisations, welfare systems), and of systems embedded in systems. I became interested in the skills people needed to be effective within organisations.

1975–1988    On graduating, I worked for three years with government agencies, then as a private consultant teaching interpersonal skills in the public sector. In

my daytime work I applied what I was learning while training as a director in psychodrama and sociodrama in the evenings. I learned to investigate social systems and the forces for change within them. I also was reading into systems theory, but spontaneity in social systems (Moreno, 1947) captured my interest more than analytic methods such as soft systems methodology (Checkland, 1981).

- 1984–1987 I was part of an action research project in which experienced secondary school teachers investigated how they managed relationships in their classrooms. Over six months, participants engaged with the striking complexity of everyday classroom interactions, and began to change how they thought and acted. Kemmis and McTaggart's work (1982) provided tools for inquiry in action.
- 1989–1998 Dissatisfied with working only on individuals' skills, I shifted to the performance management systems being introduced into the public sector, and then to management development programs. I developed action learning programs for peer groups of managers where they worked on what *they* saw as critical issues in their work system. Three projects marked my developing interest in learning within organisations.
- 1994–1996 The Western Australian Department of Agriculture had moved away from a discipline-based structure to industry programs where goals and services were to be negotiated with industry. I ran a four day program for managers and their teams across the State, to develop the leadership skills and ways of thinking for this new way of doing business. My focus shifted firmly to the team in the organisation, and to what was needed to innovate in conditions of uncertainty.
- 1996–1998 The West Australian Water and Rivers Commission had recently formed from three separate organisations, and I undertook several projects



supporting learning in the new organisation. The concept of a learning organisation (Senge, 1990) provided a way to address change at individual, team and organisational levels, and I had come to appreciate the influence of assumptions underpinning people's practice (Argyris, 1982; Schön, 1983; Argyris et al., 1985). By 1998, action learning groups with managers had extended to multi-level teams convened to take on critical issues, such as conflict over water use in unregulated streams. The use of action learning groups stopped abruptly when the Director of Human Relations and CEO were replaced.

1999–2001     The project *Working the Networks* began with the question of how the Department of Agriculture could maintain skilled staff in the remote south-east Wheatbelt region of WA, where rapid turnover was undermining agency services. I recruited staff with 'network-building' in their job description, and ran an action research program investigating how to build networks. Process and practices were documented ready for use by other staff, but change in agency management meant these materials were not used. Wenger's *Communities of Practice* (1998) led me to the realisation that the action research I had been facilitating took place within communities of practice, and needed sustained support but not control from senior management.

2000  
onwards     I began facilitating strategic planning at business unit and agency levels of government, and applied similar processes in land use planning and regional planning. Work in the agriculture and NRM sectors gradually came to dominate my portfolio. Three projects crystallised my interest in environmental governance regimes.

2002–2004     I joined a team of consultants developing the Regional Catchment Strategy for the Corangamite CMA in Victoria, facilitating and

documenting consultation with local communities and other stakeholders.

The goodwill generated and the connection between strategy and implementation were lost as funders at state and national levels imposed their agenda and the CMA became absorbed in these negotiations.

2004 I designed a participatory conference for 300 community Landcare members and staff. This reinvigorated participants' commitment to Landcare, but the ten self-organising groups the Conference created failed to capture the attention of decision-makers, and the Landcare Unit did not have the resources for further support.

2004–2006 I developed and trialled indicators and measures for what was called the 'social asset' in NRM. I thought that making the social measurable might put those aspects of NRM on a footing with biophysical resources. My conceptual logic built a strong connection between social capacity and biophysical outcomes, and the measures I had developed worked in my trial site. However, CMAs proved to be more interested in planning for biophysical assets than in opening up accountabilities for a social asset. The project sponsor left halfway through the project, and I could find no-one in DSE to take the measures further.

What else could I do as a consultant? Why were environmental governance systems so slow in making better use of collaborative processes? The Readiness Project provided my next opportunity to pursue these persistent questions. I brought with me a set of assumptions about change which I now summarise, to make transparent my biases as a facilitator and consultant.

*Change from the inside out.* People like to work things out for themselves. Enduring change is more likely when people in their existing relationships decide what needs to be changed and how to do it. Even when people agree with expert analysis and solutions developed

by outsiders, they tend not to act on these, and mandating change from the top typically produces open rebellion or passive but ineffective compliance.

*Support innovators across the system.* It is not possible or necessary for everyone to be motivated to change. Find those who are questioning the system and want to improve it, and connect them. Each knows and can influence their part of the social system, and the connection to other innovators will generate more avenues for innovation.

*Support many small changes across the system.* Opportunities and constraints change all the time, so many small changes are more effective than one grand design. Small changes build understanding, respond to differences in context and carry low risk. Prototypes of 'how we want to operate' can be tested and redesigned in rapid iterations.

*Develop understanding in action.* People start with ideas, but as soon as action is taken, the situation and the understanding of it have changed. Testing ideas in action connects aspirations with realities. Disciplined reflection with peers makes the tacit explicit, for people know a lot more about their surrounding system than they or others think they know, and have untapped capacity for innovation.

*Act on your vision, but surface your assumptions as you go.* Visions of how things can and should be will motivate and guide action, but constraints need to be challenged too. The deepest of these are the assumptions people hold about what and how things should be done. Points of difficulty are opportunities for discovering those assumptions, and at these points, an outsider can help people to bring their assumptions to the surface and re-assess them.

These precepts influenced the choice of action research as a methodology, but left the specifics of change within governance regimes open to inquiry. In relation to these specifics, the literature on environmental governance had much to say, providing a third influence in the genesis of the research.

### **The research problem through three cycles of inquiry**

In the context of social-ecological systems facing deep challenges, the research problem is how environmental governance regimes can better support adaptive capacity in social-ecological systems. Adaptive capacity in ecosystems is the ability to maintain integrity in the face of changes in context, either by adapting current patterns of functioning or transforming them (Holling, 2001; Nelson et al., 2007). In social systems, adaptive capacity is manifest in the ability of individuals and their social networks to innovate (Armitage, 2005), gather experience of dealing with change (Berkes et al., 2003) and learn from mistakes (Fabricius et al., 2007). As the multilevel social institutions which reward, constrain and require human behaviour, governance regimes (Young, 2006b) are a significant (though not the only) contributor to adaptive capacity in social-ecological systems.

The questions in the research emerged in the interaction between what Zuber-Skerritt and Perry (2002) call the core action research and the thesis research. Core action research aims for practical improvement in a field of practice, around a concern emergent from practice issues; thesis research draws on the core action research to make a contribution to knowledge within a community of scholars. In the current research, the Readiness Project was the core action research, organised around the practice question of how Landcare Networks could become more effective and influential in landscape change. Members of the peer groups were my co-researchers in a joint inquiry into how Landcare's marginalised position could be changed. My role was to support their inquiry and to participate alongside them as practitioners. The knowledge developed was valued by them to the extent that it made them more effective.

In thesis research, standards for knowledge claims are directed not toward the efficacy of knowledge but to the rigour of research methods and the place of knowledge claims within specific fields of research. However, in presenting the problems and focal questions pursued, the action research thesis must do justice not just to the scholarly

context, but to the practice context within which the inquiry took place, which is as much the progenitor of emergent knowledge as the theory and findings of past research in a scholarly field.

In the schema proposed by Zuber-Skerritt and Perry (2002), a research problem is articulated before and as preparation for the core action research, and returned to after that research, when the results are related to the research problem. My research followed a different path. Interaction back and forth between the core and thesis research continued during fieldwork and subsequent analysis, and the inquiry developed progressively, not just in terms of its findings, but also its questions and their theoretical context. Approaching theory as 'deconstructions of the way in which we construct realities and social conditions and our selves as subjects in those realities' (Alasuutari, 1995: 382), I searched for concepts and findings that made sense of the peer groups' critique of NRM governance; the literature in turn offered concepts and findings to inform the inquiry. Hess and Anderson (2005: 64) characterise this as a dialogue 'between the researcher's growing observations and data and what others have written and understood about similar questions or contexts'.

The challenge in writing the dissertation has been to do justice to the unfolding of the inquiry over time, and to accommodate expectations about the presentation of research. The questions are organised here into three cycles of inquiry, reflecting the progressive inquiry into the governance context. I describe the questions in the core action research and the questions in the literature that informed that research, to which the findings provide a response (Table 1.2). A brief introduction will I hope orient the reader to this structure, and in anticipation of further exploration as the narrative of the inquiry unfolds.

Table 1.2: Research questions

<b>The Research Problem</b>	How can environmental governance regimes better support adaptive capacity in social-ecological systems?	
	<b>Core action research</b>	<b>Thesis research</b>
<b>1<sup>st</sup> Cycle of Inquiry</b>	What influence do Landcare Networks have on NRM governance? Why do they have little influence?	What influence can community-based network forms of governance have on governance regimes?
	Landcare Networks govern to maintain the momentum of change at landscape level, an approach which is marginalised in NRM governance in Victoria, Australia. The discourse of community action is subordinate to the discourse of scientific management.	
<b>2<sup>nd</sup> Cycle of Inquiry</b>	In what ways and how did the research participants change their view of Landcare in NRM governance?	How does reframing develop within a governance regime?
	Reframing can develop in an inquiry into practice within a community of practice. Embracing complaint prompts inquiry into failure, and leads to new frames and actions.	
<b>3<sup>rd</sup> Cycle of Inquiry</b>	What enabled the research participants to investigate NRM governance?	What facilitates inquiry into governance by actors in a governance regime?
	Participatory action research, facilitated with activist intent and maintained through improvising at the boundary of the inquiry, enables inquiry into a governance regime by those within it.	

### First cycle of inquiry

The peer groups were tasked with supporting members' Networks becoming more effective and influential. Each came with a goal for development of their Landcare Network, but that development pointed them outward to the surrounding NRM governance arrangements as much as it pointed inward to their Network's internal organisation. As participants listened to the circumstances of each Network, they began to build a picture of the constraints Landcare Networks faced in NRM governance and of their limited influence on higher levels. They first complained about these constraints,

then began to ask why the constraints persisted. Their question became: 'What influence do Landcare Networks have in NRM governance?' They began to pinpoint a bias against community action in the governance regime, and some relationships that offered opportunities to influence decisions and challenge assumptions.

In parallel, within the thesis research, I identified the field of research as environmental governance, and the overarching research problem as the influence of network forms of governance on the dominant goals and practices of governance regimes. The concepts of network governance and multilevel governance regimes resonated with the way my co-researchers talked about the NRM system. Levels of governance became what Clarke (2005) calls a *sensitising concept*, that is, a concept that suggests directions in which to look rather than prescriptions as to what to see. Research on Landcare, which I review in Chapter 2, had concluded that Landcare was an instance of state-sponsored community participation (Curtis and Lockwood, 2000), that drew on and developed social capital to strengthen collaborative relationships around NRM tasks (Sobels 2006). However, Landcare had little influence on the goals and structure of the governance regime, and its focus on individual responsibility and cooperative local action evidenced a neo-liberal inspired approach of governing-at-a-distance (Lockie 2002, 2004; Higgins and Lockie, 2002).

The literature on social-ecological systems, drawing together research on decision making in networks and multilevel governance regimes, was addressing the question of how governance could better support adaptive capacity in social-ecological systems. This fitted well with the critique developing within the core action research, that the preoccupation of government programs with narrowly proscribed biophysical targets and interventions based on technical assessment of threats to assets was marginalising community action, and reducing adaptive capacity. An inquiry into community-based governance within the agricultural landscapes of an industrialised country like Australia would complement the extensive governance research in communities dependent on

resources harvested from ecosystems (see for example Armitage et al., 2007) and on agriculture in developing countries (for example Ribot and Larson, 2005). Chapter 3 reviews the literature on governance and governance of social-ecological systems. It concludes that while network forms of governance increase the adaptive capacity of social-ecological systems by enabling actors with differing knowledge, values and interests to understand complex problems, agree on solutions and integrate their actions, it is unclear whether and how they influence the agenda established by higher levels within governance regimes.

As a community-based governance network at the bottom of NRM administrative hierarchies, Landcare Networks offered a particular window into this question. Like other experiments in local and regional economic development, health care and social justice, they must make their way within the existing allocation of power between levels, and the goals set by higher levels, while probing for the possibility of change to the policies and governance arrangements that affect them. Chapter 5 *Landcare Networks' critique of NRM governance* presents how Landcare Networks saw the NRM regime and their influence within it. In Chapter 6 *The governance practice of Landcare Networks*, I describe the governance practice underpinning this critique.

The presence of a coherent and effective approach to landscape change, alongside marginalisation of Landcare Networks in NRM governance, invites again the question of why Landcare Networks have little influence. When my co-researchers explained Landcare's marginalised position in terms of differences in assumptions as to who had agency in landscape change, the concept of discourse began to earn its place in the analysis. In Chapter 7, I compare the discourse of community action with other discourse in NRM governance, and revisit the marginalisation of Landcare in terms of competition between discourses. Regionalisation and targeted investment have reinvigorated the discourse of scientific management and a new storyline for community action has not been found.



## Second cycle of inquiry

As my co-researchers investigated their failure to change Landcare's marginalisation and began to understanding how community action differed from the approach of many government programs, they began to change their thinking about Landcare in the NRM governance. They began to explore new ways to influence the governance regime, becoming more active in advocating for the interests of their communities and challenging constraints to community action within NRM governance. They were not much interested in understanding *how* they arrived at their new stance, but I was. What exactly had changed in their stance within NRM governance?

The concept of *frames* proved useful. Frames are schemata of interpretation that enable individuals to make meaning in events, organising experience and guiding action (Snow et al., 1986). *Reframing* provided a way to examine what had enabled change. Chapter 8 *Doubt and the dynamics of reframing in environmental governance* identifies the frame of local action within which Landcare Networks operated, and doubt in the partnership with government as the force which made the frame vulnerable. I also provide an analysis of the process of inquiry between peers that enabled reframing, showing how taking complaint seriously became an entry point to investigate failure, strengthened participants' resolve to take responsibility for problematic practice, and produced new frames and new actions to influence the governance regime.

## Third cycle of inquiry

Reframing helped make sense of changes in the peer groups, and drew into focus some of the behaviours within the peer groups associated with reframing. However, it did not address other activities that supported reframing in the peer groups. I began the inquiry seeking to use and test the relevance of participatory action research, and in Chapter 9 *Improvising change in governance*, I examine in finer details two aspects of the application of this methodology. I reflection on my own practice to identify facilitation with activist intent as a practice that supported inquiry within the peer groups, and the negotiation of

the boundary between the inquiry space and its organisational setting as practice that maintained the viability of the peer groups as a space for inquiry. The concept of improvisation is used to capture the responsiveness that underpinned each of these practices.

## Chapter 2 Landcare and NRM in Australia

Private landholders manage 63% of Australia, with 14% managed by indigenous interests, and 23% in public ownership (Geoscience Australia, 2010). Land management practices of private landholders affect soil health and the quality and quantity of biodiversity, water and waterways. Australia's deeply weathered, fragile soils and highly variable climate, marked by prolonged periods of low rainfall, make these ecosystems vulnerable to the forms of agricultural production developed in Europe (Gammage, 1994; Flannery, 1995; Barr and Cary, 2001). Protected areas cover 11% of the continent (Australian Government, 2010), but remain fragmented and unrepresentative. In Victoria, for example, 15% of the state is protected, but in 1,966 separate parcels (DSE, 2005). The areas of native vegetation owned by private landholders are substantial in their own right and significant for connectivity in ecosystems; decline in condition of private land and decline in biodiversity are closely linked (Curtis and Lockwood, 1998).

For government programs, Landcare has provided access to landholders and made them better informed and skilled in addressing land degradation (Curtis and De Lacy, 1996; Curtis, 2003b). For landholders, Landcare has been a way to work with government programs on problems in their local area (Campbell, 1994). The combination of local organisation, technical support and funding from government programs has produced substantial change in land management practices (Curtis et al., 2008), and created local organisations that learn about, plan and take action on environmental problems.

Landcare is an example of community-based natural resource management, an approach to NRM that seeks 'full participation of communities and resource users in decision-making activities, and the incorporation of local institutions, customary practices, and knowledge systems in management, regulatory and enforcement processes' (Armitage, 2005: 703). This chapter describes the development of Landcare and its shifting fortunes within the NRM governance regime. I begin with the policy context within which NRM

in Australia has developed. I describe how local Landcare groups developed, then Landcare Networks, and examine the impact of recent regionalisation of NRM on Landcare's influence. I then review two streams of research on Landcare – its impact on land management practices and its role in governance of rural landscapes – and test the relevance of an inquiry into the influence of Landcare Networks in the NRM governance regime.

### **Natural resource management in Australia**

Australia is a federated nation of six states and two territories, with local government organised on a province basis within states. At Federation in 1901, state governments retained responsibility for soil conservation, biodiversity protection, management of protected areas and management of environmental impacts of resource production sectors such as mining, forestry and fisheries (Bellamy et al., 2002). Local government has responsibility for land use and development planning. The interest of the states has been exploiting the capacity of natural resources to contribute toward material wealth. In a nation isolated from the rest of the world, with little capital and a small population clustered in coastal towns, settlement of rural areas has been an important social policy (Martin and Ritchie, 1999). Agriculture and rural development have gone hand in hand, and State governments have supported both with infrastructure, economic incentives and technical support (Loudon, 2004). Nation-building in the first half of the 20th century gave way to 'welfarist' agriculture policy in the 1950s and 1960s, which used subsidies and support for expansion to protect producers from market fluctuations and natural disasters and to develop rural areas (Martin and Woodhill, 1995).

In the 1970s, Australian governments began to open agriculture to competition within world markets, integrating agriculture into globalised supply chains and financial markets (Vanclay and Lawrence, 1995). Influenced by transnational companies and backed by the interventions of the International Monetary Fund, the World Bank and the World Trade Organisation (McMichael and Lawrence, 2001), liberalisation of markets has meant the

removal of subsidies for Australian agriculture, dismantling of single desk marketing structures and a sustained campaign for major trading partners to dismantle import quotas and subsidies (Cocklin et al., 2006). Exchange rates and financial markets have been deregulated. As a consequence, farm numbers have steadily decreased and capitalisation of farms has increased. Without the protection of fixed exchange rates and statutory marketing boards, and competing against heavily subsidised producers in Europe and North America, farmers have faced increased economic risk (Sobels et al., 2001).

The 1970s also brought evidence of the cumulative effects of large-scale vegetation clearing, grazing and cropping practices, river regulation and irrigation, and the introduction of exotic animals and plants. Soil erosion had been a recognised problem since the 1930s; now dryland and irrigation salinity, declining water quality, and loss of habitats began to be understood as threats to agricultural productivity, public health, and living standards (Curtis and Lockwood, 2000). The federal government's responsibilities for environmental protection under international treaties such as the Ramsar Convention, and policy on ecologically sustainable development, strengthened its interest in decisions on development that had previously been left to the states (Head, 2005b). The federal government came under pressure from social movements to use its constitutional powers in trade, foreign affairs and treaties, corporations and territories to override the states on environmental matters (Wallington and Lawrence, 2008).

In the 1980s, as scientific evidence mounted on the impact of land degradation on productivity, NRM issues in agriculture became national problems (Vanclay and Lawrence, 1995). Influenced by its obligation to matters of national environmental significance and international obligations in trade agreements and treaties, the federal government began to invest directly at local level to support change in land management practices and conservation of biodiversity. The 1992 Intergovernmental Agreement on the Environment (Australia, 1992), marked a turning point. National, state and local

government accepted responsibilities to pursue sustainable development and conserve biological diversity (Jennings and Moore, 2000). Agriculture agencies of state governments had already developed issue-based programs targeting threats to productivity such as soil erosion (following droughts in the 1930s) and salinity (in response to the rapid rise in saline groundwater in the 1980s). With federal funding directed at NRM problems, these agencies now increased research, development and extension activities directed at environmental problems.

However, this activity still approached environmental problems as threats to agriculture. Influenced by the neo-liberal belief that markets can deliver better economic and social outcomes than government controls, policy sought to internalise to individual enterprises the environmental and social costs of agriculture (Lockie, 2006). State and Australian governments provided support for voluntary adoption of better farming practices and financial incentives for community action to remedy degradation (Bellamy et al., 2002; Pannell, 2005). Support included information, assistance with farm planning, opportunities to build skills in land management and market-based incentives (Lockie, 2006). Regulation was used principally in support of agriculture, with controls over pest plants and animals and the use of chemicals, but with little regulation of the use of land or water (Head and Ryan, 2004). Natural resource management was understood as the responsibility of individual landholders, within the context of private property rights (Reeve, 2001).

Rural landholders had (and still have) a strong preference for voluntary change rather than regulatory controls (Cocklin et al., 2007), reflecting the centrality of individual property rights in the culture of farming in Australia (Reeve, 2001). The fiscal rationale for reliance on voluntary works and practice change has been that Australia's small tax base and the unwillingness of urban Australians to invest in rural Australia make it impossible for government to afford any other approach (Curtis et al., 2008); the political motivation

has been that voluntary approaches allow farmers to avoid regulatory constraints, and governments to avoid conflict with agricultural interests (Head, 2005b).

### **The development of Landcare**

The first Landcare group was formed at Winjallock in the north-central region of Victoria in November 1986 (Youl, 2006a). Groups of landholders formed and continue to form voluntarily, with no legislative backing. They usually incorporate as voluntary bodies, and managed by an elected committee of local members. Membership is open to any local person, and groups have on average around 30 members (Curtis and De Lacy, 1996; Curtis and Cooke, 2006). Landcare groups have only informal links to local government and regional planning bodies. They do what their members decide to do and what government programs will fund. Government programs have similar flexibility in using Landcare groups. Where a local Landcare group seeks support, or an agency program wants to influence landholders in a particular area, agency staff and the local group negotiate their collaboration. Opportunistic collaboration between agency staff and private landholders has been a feature of Landcare since inception. Indeed the genesis of Landcare has its roots in collaboration between innovators across this apparent divide.

#### Antecedents of Landcare

Youl (2006b) describes conservation activity in Victoria for the 20 years prior to 1986.

Some 3000 community committees managed roadsides and other public lands:

‘showgrounds, cemeteries, coastal reserves, picnic spots, campgrounds’ (Youl, 2006b: 81).

Farm forestry was developing, chiefly of *Pinus radiata*, although some landholders were testing the benefits of indigenous species for wind shelter and pest control. Awareness of the loss of native vegetation in urban and rural areas was growing, particularly the loss of tree cover in paddocks. Preference for European exotics was being challenged and naturalists were speaking out about the need for viable ecologies to preserve native species (Youl, 2006b). Farm tree groups were forming, planting trees for conservation and

agricultural benefits and connecting the conservation movement and farming community (Curtis, 1998).

In Youl's (2006b) account, attention to issues like salinity, erosion or loss of native vegetation typically began with passionate individuals within agencies and the community linking up, first to visit, look and talk about each others' work, then to initiate small projects. Tours were used to demonstrate what was being done and seminars to draw together technical opinion. Lobbying within their respective domains to win support, these enthusiasts might sometimes be blessed by the enlightened interest of a politician. The committees that ensued then coalesced new thinking and generated initiatives for agency and political endorsement. The creation of Landcare followed this pattern. Since the 1960s, district staff of the Department for Agriculture had created Group Conservation Areas based on catchment boundaries. Backed by the legislative mandate of the Soil Conservation Authority, agency staff negotiated agreement with landholders on erosion control measures, then implemented engineering works. However, this approach failed to generate local responsibility for tackling erosion issues or even for maintaining project infrastructure (Curtis, 1998).

Staff of the Soil Conservation Authority began working with landholders to establish Land Protection Groups within which farmers developed projects and planned action they themselves could take to improve water management. Through the 1970s, a vanguard of Australian soil conservationists, extension agents, and farmers were influenced by new rural development theory that emphasised self-help and cooperative community effort supported by change agents (Curtis, 1998). Agency staff who adopted this approach came to think of themselves as facilitators of landholder learning, not just expert advisers, and used local groups to facilitate learning (Carr, 1995). This was an Australia-wide development, with activity focused on high profile problems in each state—for example, dryland salinity in Western Australia, water quality in South Australia, and water allocation in Queensland (Bellamy et al., 2002).



In Victoria, a change of government in 1982 led to amalgamation of several departments, agencies and boards into a Department of Conservation Forests and Lands (CFL). Within this agency, a Land Protection Service (LPS) brought together the Soil Conservation Authority, the Vermin and Noxious Weeds Destruction Board, and the farm forestry section of the Forests Commission. This multi-disciplinary environment broke attachment to old agency loyalties and encouraged partnerships with landholders (Youl, 2006b). The Land Care Program (as it was first called) was conceived within LPS as 'a means of identifying, highlighting and integrating a wide range of inter-related (land) protection projects that are currently carried out within individual sections of the department' (Poussard, 2006: 113, citing LPS meeting minutes). The program would 'show what the government was doing in the area of land protection' (Poussard, 2006: 113). The focus at community level was firmly on community-managed groups and projects:

(Land Care) will be group driven, that is, its management will be by local groups who will cooperate towards a defined (Land Care) objective. ....The purpose of (Land Care) groups is to focus, and give practical, local expression to local needs, enthusiasms, initiatives and to integrate local and Government strategies, plans and resources to that end. (Poussard, 2006: 114, citing internal CFL submission)

The new program won support from an unexpected alliance between Heather Mitchell, President of the Victorian Farmers Federation (VFF), and Joan Kirner, Minister for Conservation, Forests and Lands (Campbell, 1994). The launch of the first Land Care group at St Arnaud was held beside the last remaining *Casuarina stricta* tree on a degraded grazing block being restored by the local VFF branch and the landholder. At national level, an equally unexpected alliance between the National Farmers Federation and the Australian Conservation Foundation had produced a blueprint for rural environmental management centred on local groups (Martin and Ritchie, 1999). In 1989, Prime Minister Hawke backed that plan, and announced a commitment of \$360m for a *Decade of Landcare*. Campbell (1994) noted that in 1988 the Commonwealth budget for the National Soil Conservation Program was roughly the same as the landscaping budget for the new

national parliament house – the Landcare commitment ended a long standing reluctance to fund action on land degradation. Reflecting the enthusiasm for sustainability generated by the recent Brundtland Report (World Commission on Environment and Development, 1989), funding for Landcare was positioned as a commitment to ecologically sustainable development (Ewing, 1996).

The subsequent National Landcare Program (NLP) had relatively open guidelines, allowing a variety of models of local group organisation to develop (Compton et al., 2009). The NLP supported local group coordination and administration, property and catchment planning and demonstration projects, but excluded direct funding for new works or practices on the expectation that farmers should invest their own money in putting into practice the changes they learned through their local Landcare group (Martin and Ritchie, 1999). However, the NLP had the unanticipated effect of increasing scrutiny by community groups of the contributions and policies of both Commonwealth and state governments. Pressure from landcare and farmer peak bodies led to funding criteria in the Natural Heritage Trust from 1997 allowing incentive funding to support landholders' own investment in on-ground works such as replanting, erosion control, and pest and weed control (Martin and Ritchie, 1999). Funding for local facilitators shifted the burden of applying for, organising and reporting on government funding from community members to paid staff.

#### Landcare group activity

Landcare groups grew rapidly in Victoria and Western Australia, then in other States. By 1990, fifty Landcare groups had been registered in Victoria; by 1991 there were over 300 groups and more than forty community-based facilitators (Curtis, 1998). By 1995, in rural areas with Landcare groups, there was a Landcare member in almost 50% of households (Curtis and De Lacy, 1996). By 2004, across Australia, there were around 4,500 Landcare groups involving around 37% of the broadacre and dairy farming community (Nelson et al., 2004). In Victoria in 2004, there were over 721 landcare-type groups, with 23,000

members and a further 30,000 volunteers helping from time to time (Curtis and Cooke, 2006). Extension programs had come to expect engagement with a small subset of landholders; 'engagement of rural landholders through Landcare', observed Curtis (2003b: 3), 'has clearly moved beyond the small "expert farmer" group of up to 15% of landholders engaged by traditional one-to-one extension programs'.

Public recognition of the Landcare brand also developed. In 2000 in country Victoria, 89 per cent of people had heard of Landcare, and 82 per cent recognised the logo; in urban Victoria, 70 per cent had heard of Landcare and 74 per cent recognised the logo (Second Generation Landcare Taskforce, 2002). In 2008, a survey of community awareness of NRM issues found that Landcare was the single most-often mentioned natural resource management organisation, with un-prompted recognition by 36% of respondents (Wallis Consulting Group and Scarlet Consulting, 2008).

Amongst community Landcare members and their staff, Landcare means local action on local problems, '... a group of people concerned about land degradation problems, who are interested in working together to do something positive for the long-term health of the land' (Campbell, 1994: 31). For some landholders, *group* activity is not definitive, and landcare is primarily individual's actions: 'Landcare .... it's obviously caring for the land and it's as simple as that,' says one farmer (Lockie, 1995: 7). Landcare groups do some organise projects that are implemented by individual landholders on their properties, using either their own or contractors labour, but for most landholders, however, Landcare has come to mean a group of volunteers, committed to the place and community in which they live, who want to improve their own practices, work with others to improve the environment and leave a legacy for future generations (Carr, 2002; Gooch, 2005; Warburton and Gooch, 2007). That cooperative activity has modified the long-established view in rural Australia that managing land is a entirely a matter for individuals (Reeve, 2001).

Group activity is focused on privately owned or leased rural land, and depending on the interests of the group, on roadsides, reserves and other public land. Research provides a picture of the core activities of Landcare groups (see in particular Curtis, 1998; 2008).

Local groups raise awareness and individual skills in dealing with land degradation problems through information sessions, field guides, farm walks, demonstration and trial sites and field days. The range of land management practices includes planting of trees and shrubs, fencing of remnant vegetation and drainage lines to manage stock access, reduction of machinery and stock traffic on seasonally wet soils to reduce compaction, use of troughs to water stock, monitoring of soil, pasture or vegetation condition, minimum tillage cropping, control of pests and farm planning.

Groups also organise on-ground works to remediate land degradation, such as establishing native vegetation in critical locations on public and private lands, erecting fencing to manage stock access to creeks and streams, establishing wildlife corridors, building salinity and erosion control structures, and coordinating local pest plant and pest animal control. All groups informally monitor land and water quality, and most develop plans for action locally and contribute to wider catchment planning. Many facilitate the development of local property plans in the context of catchment plans. Groups keep members and non-members informed about all these activities through community newsletters, act as a point of liaison with agency staff, and seek government funds to support local group activity.

Local group activity depends primarily on the interests of members, and that in turn depends on local patterns of land use. Activities of a Landcare group in peri-urban areas will be likely to emphasis conservation, while those of a group whose members rely for their income on farming are more likely to focus on farm-based conservation practices. However, as Carr (2002) observes, activities of a group can simultaneously serve conservation and production interests. The focus of government funding also shapes

what local groups do, offering an incentive to do work that would otherwise have to be fully met from landholders' budgets.

### **Landcare's impact on land management**

Landcare activity has had a substantial impact on land management practices.

Participation in Landcare groups is associated with increased *awareness* of environmental degradation, knowledge of land and water degradation processes and sustainable land management practices, and adoption of those practices (Curtis and De Lacy, 1996; Curtis et al., 2000; Sobels et al., 2001; Cullen et al., 2003; Hodges and Goesch, 2006; Curtis et al., 2008). Landcare members are more likely than non-members to be aware of dryland salinity, soil acidity, tree decline and soil compaction, and to change their practices to reduce degradation on their properties.

Higher rates of participation in Landcare group activity are associated with increased rates of adoption of recommended land management practices, participation in training and farm planning, and implementation of on-ground works to ameliorate land degradation (Curtis and De Lacy, 1996; Curtis, 2003b; Cullen et al., 2003; Curtis and Cooke, 2006). The practices most frequently implemented by group members have been revegetation and other nature conservation works (68%), pest control (66%), and 'conservation farming' practices such as reduced tillage (65%) and erosion control (63%) (Nelson et al., 2004). Groups with a higher proportion of members participating in the group's activities accomplish significantly more on-ground work, and those members who participate more do more on-ground work (Curtis and De Lacy, 1996). Farmers themselves attribute changes in their land management practices to their involvement with Landcare: 95 per cent of Landcare group members and 71 per cent of non-members report that their properties have benefited from their participation in Landcare activities (Nelson et al., 2004). Landcare groups also influence non-members. In districts with a Landcare group, landholders have higher levels of adoption of sustainable farming practices than those without a Landcare group (Curtis and De Lacy, 1996), and up to 75

percent of broadacre and dairy farmers report using Landcare groups as a source of farm management information (Curtis et al., 2008).

The initial program logic of the National Landcare Program was that local groups would make farmers more aware of resource management problems, motivate them to value environmental health and inform them about appropriate practices. Better informed and skilled individuals would lead to adoption of conservation practices. That, in turn, would lead to more sustainable agriculture and enhanced biodiversity conservation (Curtis and De Lacy, 1996). Participation in Landcare groups does indeed increase landholder awareness of issues, their level of knowledge and their adoption of recommended practices. Valuing environmental health, however, does not by itself increase adoption of practices (Curtis and De Lacy, 1996). In fact, landholders are mostly already motivated to reduce degradation, and are ready to adopt conservation practices they perceive as delivering benefit for reasonable cost (Pannell et al., 2006). They make such decisions through a process of learning about and testing a practice in action, shaped by their economic, environmental and social goals and their resources. The characteristics of the practices influence adoption—for example, how readily a new practice can be trialed (Nelson et al., 2005; Pannell et al., 2006).

Landcare groups are just one element of the social context within which individuals search for new practices. Individuals make utilitarian decisions based on assessments of costs against benefits, a rational choice theory of action. However, those decisions are made in the context of rules and social expectations. Local Landcare groups act as both a catalyst for new norms and a repository of local knowledge on good practice (Carr, 1995; Cary et al., 2002). Through interaction, group members develop greater accountability to each other (Curtis and De Lacy, 1996; Carr, 2002). They are more willing to publicly acknowledge environmental degradation on their properties, have peers review their practices and cooperate on cross-boundary problems (Lockie, 1998). Findings like this are no news to Landcare members, who expressly join Landcare for social interaction and to

learn from each other (Curtis and Van Nouhuys, 1999; Carr, 2002). As mentioned above, group members in turn influence the behaviour of non-members.

Landcare groups therefore have a significant impact on social capital. The findings of Coleman (1988) and Putnam (1993), that the community groups through which people maintain their economic and social well-being are built on social networks, shared values and norms of trust and reciprocity, are confirmed in research in Australian rural communities: community action on environmental problems draws on and in turn strengthens shared values, networks and trust and reciprocity (Kilpatrick et al., 1998; Cary and Webb, 2000; Falk and Kilpatrick, 2000; Sobels et al., 2001; Fien and Skoien, 2002).

Research on Landcare reaches the same conclusion: participation in local Landcare groups develops relationships, trust and reciprocity between Landcare members and between members and agency staff (Curtis and Van Nouhuys, 1999; Sobels et al., 2001; Byron and Curtis, 2002; Webb and Cary, 2005).

### **The emergence of Landcare Networks**

By the mid 1990s, it was clear that while local Landcare groups changed practices, it was difficult to notice improvements in resource condition at landscape level. Part of the problem was that resource condition was poorly monitored, but Landcare was in any case not resourced at a scale that would make much difference relative to the scale of degradation. If government wanted real results, it was argued, it needed to strengthen funding and agency support for Landcare (Curtis, 1998; Curtis et al., 2000). Research on social capital was used to argue the case for deeper investment in Landcare as a means of building 'social capacity' (see for example Macadam et al., 2004). Community capacity building became a funded output of Landcare, with its own government framework (Commonwealth of Australia, 2003). The program logic for Landcare, which had previously focused on change in landholders' practice, was now extended to include improvements in institutional capacity. The understanding of practice change became

more nuanced: adoption of specific practices just one element of a shift to stewardship, in which land is managed to fit capacity (Curtis et al., 2008).

However, as Landcare research and policy began developing this new logic, two other developments were afoot: the NRM system as a whole was moving to integrate activity through catchment planning; and local groups were beginning to federate into Networks. Local group activity (and agency activity too) had been spatially and temporally unconnected (Martin and Woodhill, 1995); Landcare Networks participated in the attempt to improve integration. Sobels (2006), based on a qualitative study of a Network in NSW and one in Victoria, proposed while government policy funding and staff had a major role in early establishment of Landcare groups, Landcare Networks formed on the initiative of community leaders, who saw the advantages of larger scale in Landcare organisation. In Sobel's case studies, a single individual acted as an enabling catalyst, but it was the vision of leaders amongst local groups, and the relationships of trust and cooperative activity already established within and between local Landcare groups, that provided the platform for Network formation. In fact, staff in the agencies charged with supporting the National Landcare Program 'actively fought against' formation of the Networks, 'displaying rule obsession, territoriality, and a desire for hierarchical control' (Sobels, 2006: 300). This opposition strengthened Network leaders' resolve to create an organisation that could act autonomously.

For local groups, Networks made project administration more efficient and less of a burden for members, and increased the credibility of their funding bids (Martin and Halpin, 1998). In Sobel's close analysis, scale had a profound impact, enabling the elements of social capital developed in local groups to come together within Network management committees, intensifying the exchange of learning from action and making this available across member groups. A commitment to inclusiveness and transparency lead to fair decision making processes and operational rules that meant the parallel operation of local and Network levels of organisation strengthened rather than weakened



the Network. A focus on landscape level also created relationships within Networks that transcended local affiliations, avoiding co-option by local farming elites and allowing members to feel 'part of something larger than their backyard' (Sobels, 2006: 288).

Boundaries and administrative arrangements in Landcare Network are based on agreement between groups and can be changed by groups to fit their needs. For example, Bass Coast Landcare Network was formed in 2003 when local groups were unhappy operating within the South Gippsland Landcare Network and decided to form their own Network. However, one Landcare group in that area is yet to be convinced of the value of joining the Network and continues to work on its own. In another example, Lismore Land Protection Group handles project application, management and reporting for four adjacent local groups, but is not formally constituted as a Landcare Network.

Landcare Networks have steadily increased in number to 62 in Victoria in 2009 (Curtis and Sample, 2010). In recent survey research, they are viewed by Landcare members as managing funds soundly and supporting local groups (Curtis and Sample, 2010).

Landcare group numbers have also increased, from 721 groups in 2004 (Curtis and Cooke, 2006) to a total 1,188 community-based NRM groups, a figure which includes 'friends' groups (Curtis and Sample, 2010). The focus of Landcare groups is diversifying. In 2007, when Compton et al. (2009) compared Landcare groups in central Victoria, Tasmania and West Gippsland, three distinct types of Landcare group had developed: farmer-based groups, mixed groups of farmers and lifestyle, and town groups. Respondents in that research thought that membership of farmer-based groups was declining, but also believed that many farmers were now implementing their own landcare work without needing to be in a group. Town groups were growing, and exhibiting the enthusiasm once seen in farmer-based groups. For Curtis and Sample (2010), Landcare's track record of influence on land management practices and the predicted arrival, as older farmers retire, of land managers who are not farmers by occupation, makes Landcare groups and Networks 'an essential element of successful NRM' (Curtis and Sample, 2010: 100).

## **Regionalisation in NRM**

Regions had been used in Australia after WWII to focus government intervention for economic development, and in the 1970s and 1980s for economic and social development (Morrison and Lane, 2006). In the 1990s, several influences converged to raise interest in regional scale partnerships between government, community and industry: mobilisation of indigenous interests; declining economic viability for rural producers; rationalisation of infrastructure spending and withdrawal of government services; rising interest in environmental management at catchment level; increasing diversity in rural economies and communities; and a broad trend to collaborative planning within partnerships of government, industry and community stakeholders (Morrison and Lane, 2006). Belief in the possibilities of regional governance was particularly strong in the NRM field, mirroring enthusiasm for regional level decision-making in environmental management worldwide (Jennings and Moore, 2000).

The 1992 Intergovernmental Agreement laid the foundation for a more cooperative approach to environmental protection and natural resource management between levels of government, pursued through Ministerial councils, standing committees and a range of consultative committees (Davidson et al., 2007). The 1997 Natural Heritage Trust (NHT), with a \$1.25 billion budget over five years, funded projects chosen by Regional Assessment Panels of community members and agency staff (Davidson et al., 2007), though their priorities were vetted by a Technical Assessment Panel and a State Assessment Panel before final decisions by the Australian Government Minister (Davidson et al., 2007). Evaluations of the impact of NRM funding, however, continued to show disappointing results. The costs of land and water degradation, particularly salinity and loss of biodiversity, were shown to be much higher than previously estimated, and progress under current arrangements was slow.

There was a gradual realisation that problems were systemic and had to be tackled with integrated strategies developed at regional level, where whole catchments could be

considered and local and government activities connected (Head, 2005b). Landcare had garnered an international reputation, but by the end of the 1990s, researchers of Landcare also viewed regional governance as 'the missing institutional mechanism linking and supporting the activities of Landcare and other local groups' (Curtis and Lockwood, 2000: 65). Many NRM staff in the field believed that putting priority-setting closer to the point of implementation would increase stakeholder participation and build commitment to action (Robins and Dovers, 2007a; Lockwood et al., 2007), providing 'a means to harness the agency of the community and civil society' (Lane et al., 2004: 104). There were in fact a great many hopes held for regional governance in NRM. A review of Australian literature found claims for ten benefits:

- enhanced integration across agencies and governments, as well as across social, environmental and economic issues and objectives in both program planning and delivery
- facilitation of solutions that are appropriate to regional biophysical conditions at a landscape scale
- ability to establish appropriate power sharing and partnership arrangements
- provision of fair representation of all interests and meaningful stakeholder involvement
- management and reduction of conflict
- improved efficiency of public and private sector NRM investment
- bridging strategic public interest and private operational activities
- better conversion of planning products into on-ground outcomes
- increased community ownership and commitment to NRM

- community learning and capacity building (Davidson et al., 2007: 5).

Bolstered by government reports (Industry Commission, 1998; National Natural Resource Management Task Force, 1999), Ministers of the Australian Government and the states agreed that a more devolved, regional delivery of NRM programs was needed. In 2000, the Australian Government's new National Action Plan for Salinity and Water Quality (NAP), which targeted twenty-one high priority regions, made funding conditional on a long-term regional strategy and a three year regional investment plan. Agreements between the Australian Government and the states established procedural, reporting and accountability arrangements for regional organisations. These included requirements for assessment of resource condition, target setting, investment allocation, stakeholder consultation, monitoring and reporting, processes for accrediting regional strategies and funding investment plans.

In 2002, another major funding source, the NHT program, adopted these requirements. The language of funders shifted from 'funding for projects' to 'investments in regional NRM plans' (Davidson et al., 2007: 4). While the official rationale sought to maintain continuity with past community-based approaches by affirming the 'devolution of greater authority to and empowerment of regional communities' (AFFA, 1999: 34), several other motivations were at play. Head (2005b) notes that the primary industries portfolio had significant influence, seeing regionalisation as a way to act on deteriorating natural resource condition. The shift to regional structures was also 'undoubtedly intended ... to challenge the traditional state and local approaches, which were seen by the federal government as having failed to address and improve regional NRM outcomes' (Head, 2005b: 141). The third motivation was administrative efficiency. Growth of local NRM groups under the NHT program had increased transaction costs to government (Morrison, 2009). A government of neo-liberal persuasion and the managerialism associated with what was known as 'new public management' combined to create a system of administration organised around the needs of governments as purchasers of outputs, in

which regional NRM bodies delivered services for government (Moore and Rockloff, 2006; Marshall, 2009).

The working out of regionalisation was different in each jurisdiction. Structures varied in the degree of legislative standing and statutory functions provided to regional bodies; different states brought different levels of experience with regional decision-making (Davidson et al., 2007). For example, in Western Australia, Queensland and Tasmania, corporate bodies based on community organisations operate without legislative backing, while those in New South Wales, Victoria and South Australia are structured as statutory authorities (Dovers and Wild River, 2003). In most cases, state ministers nominated or confirmed board appointment, but not in Queensland and Western Australia.

In Victoria, the Catchment and Land Protection Act 1994 had created structures at regional scale for protection of catchments. An amendment in 1998 created Catchment Management Authorities (CMAs), with authority to charge landholders rates (revoked soon after by an incoming government) and ministerial appointment of boards. The ten CMAs consolidated many existing land and water management community advisory and service delivery groups. When funders required accredited regional strategies, CMAs took up their catchment planning responsibilities with vigour, and their five year Regional Catchment Strategies and annual Investment Plans made them (on paper) the single organisation setting NRM targets and negotiating investment allocation.

Regional bodies were intended to build on community organisation of action and create a setting where local and regional level interests could table their agendas, agree on goals and commit to action. However, NAP and NHT also required regional bodies to target the most significant assets facing the most serious threats, an approach that came as a set of principles, but without methodology. What became known as the *assets-based approach* focused on biophysical assets. The community would help to value assets and provide a means for achieving targets, but was not an asset in its own right (see for example, Land Information Group, 2002; Natural Resource Management Ministerial Council, 2006).

By 2008, regional bodies had developed processes for technical assessment of assets and threats, and for setting targets and priorities, but had not yet demonstrated the results anticipated by the Australian Government, whose auditors found:

... little evidence that there has been any substantial movement towards landscape scale repair and replenishment of natural resources as envisaged by the NHT. Nor was there evidence of significant progress towards preventing, stabilising and reversing salinity trends as envisaged by the NAP. (Auditor-General, 2008: 24)

Lacking adequate data, regional bodies were not able to choose cost-effective investment. Programs were designed without a careful assessment of whether they could achieve the desired benefits, and reporting focused on activities and outputs rather than outcomes (Pannell et al., 2008). Regional bodies were hampered by long-standing fragmentation of NRM responsibilities between state and national levels and a lack of integrated policy to support regional activity (Productivity Commission, 1999; Morrison et al., 2004; Head, 2005b; Dovers, 2005a). Policy, programs and knowledge for agriculture, water resources, conservation and regional development remained separate. Regional bodies faced the impossible task of understanding each of these domains, and negotiating alignment of state and national government priorities across these domains with regional NRM priorities.

Many regional bodies took up their responsibilities with limited tools for integrating different disciplines and for taking account of the trade-offs necessary in decisions that sought to meet biophysical, economic and social goals (Paton et al., 2004). More than a few struggled to develop the administrative capabilities required by funders (Robins and Dovers, 2007a). Development of state level planning frameworks, for example, for biodiversity in Victoria (Lowe et al., 2006) gradually made planning easier for regional bodies. However, the focus on delivering what the funders wanted mitigated against questioning those requirements: one study of regional programs showed little evidence

that their staff sought data on the impact of program activity, or adjusted their action in response to evidence as to its effectiveness (Allan and Curtis, 2005).

A persistent observation was that responsibility had been shifted to regional bodies while state and national governments retained significant power in priority-setting and investment allocation (Lane et al., 2004; Paton et al., 2004; Whelan and Oliver, 2005; Moore and Rockloff, 2006; Marshall, 2007). The legitimacy of some regional bodies was problematic. Board members were appointed, not elected; their capacity to represent and communicate with their constituencies was in doubt; the relative powers of volunteer members of regional bodies and professional staff were ambiguous or skewed towards staff; and there was lack of transparency in decision-making (Morrison, 2009). In some states, regional bodies initiated dialogue between interests that had previously not talked with each other (Pero and Smith, 2006). However, the more common finding was that significant interests were inadequately represented in regional structures and decision-making processes: Landcare, indigenous groups, conservation interests, local government, women, non-human species and generational interests (Paton et al., 2004; Moore, 2005; Keogh et al., 2006; Moore and Rockloff, 2006; Lockwood et al., 2007). Engagement with local government was conspicuous by its absence, a critical lack given local government's role in land use and development planning, management of public land, and its local knowledge and service provision (Wild River, 2006).

Accountability to state and national governments overwhelmed accountability to local communities (Wallington and Lawrence, 2008). Staff and boards of regional NRM bodies described 'insufficient devolution of powers to regional NRM bodies by the Australian and some state governments' and a need to 'be separate from government in order to earn legitimacy from their communities' (Lockwood et al., 2007: iii). Complex financial and performance reporting processes drove up transaction costs (Morrison, 2009) and neglected systems for monitoring changes in resource condition (Hajkowicz, 2009). Administration of NRM by two federal portfolios – agriculture and environment – with

very different missions, produced 'a program which is often unclear in intent, and administratively onerous in structure, thereby delaying its on-ground effectiveness' (Morrison, 2009: 233). More fundamentally, the organisation of accountability around outputs displaced democratic accountability and limited the ability of regional NRM bodies to respond to emerging circumstances and aspirations with action that targeted outcome rather than outputs (Wallington and Lawrence, 2008; Davidson and Lockwood, 2009).

In Victoria, the commitments of the Department of Sustainability and Environment (DSE) to its own programs had considerable influence on investment allocation. By 2008, that Department had rolled all state government programs with NRM outcomes into a budget process that required attention to Victorian Government targets (DSE, 2009). What had been promoted as regional governance began to look more like deconcentration, the devolution of administrative responsibility in which central authorities retain the power to decide required outcomes and to some extent, how those will be achieved (Morrison and Lane, 2006; Davidson and Lockwood, 2009).

### **The impact of regionalisation on Landcare**

For Landcare groups and Networks, the hope had been that regional bodies would integrate local activity into regional priorities, and 'coordinate, not control' (Curtis and Lockwood, 2000: 65). Regionalisation, however, had immediate and longer-term negative impacts for Landcare groups and Networks, which came to see regional bodies as another level of bureaucracy, remote from the 'real' community. Established relationships, social networks and norms were disrupted for all NRM players, and there was a lengthy period of confusion about new roles (Lane et al., 2009). That confusion was less extreme in Victoria, where CMAs had been operating for several years, than in states such as South Australia and New South Wales which developed new statutory bodies. NAP and NHT requirements for community input to regional plans meant that regional bodies drew



heavily on the limited number of volunteers interested in contributing their views (Paton et al., 2004; Johnston et al., 2006).

Community members, even those with experience in the NRM system, struggled to identify with the new regions. The fifty-six regions mandated by the federal government absorbed previous regions developed by community organisations, and covered several different catchments, systems of land use and communities. In the southern half of Victoria, for example, the Corangamite CMA's area of 13,340 km<sup>2</sup> takes in five river catchments, each with a distinctive pattern of land use and settlement. West Gippsland CMA's area of 17,685 km<sup>2</sup> has seven significant catchments. The boundaries of regions did not necessarily fit community perceptions of place, making it difficult for community members to understand regional planning. Regional targets meant little to local communities. Smaller regions might have enabled Landcare members and staff to better communicate their place-based interests; they now had to find their place within region-wide targets. For planners, smaller regions might have made the social-ecological interdependencies needed to address influence landscape processes more accessible (Brunckhorst and Reeve, 2006). For both actors, the administration of landscapes with river catchment boundaries displaced older community-based and commodity-based patterns associated with place constructed by those living in these landscapes (Beilin, 2001).

The structure of Landcare groups and Networks was not formally linked to regional planning. Extension, education and capacity building activities still made up 40% of regional budgets (Pannell, 2010), but this did not as often go through Landcare groups and Networks. Under NHT, these activities had been a major vehicle for program delivery and a significant influence on how funds were used. Landcare Networks now found themselves competing for funds with regional bodies, government agency programs and non-government organisations (NGOs) (Paton et al., 2004; Regional Implementation Working Group, 2005; Johnston et al., 2006). In Victoria, Regional

Assessment Panels had made recommendations on government investment and Landcare members had had influence here: now CMA boards signed off investment proposals, relying on assessments by CMA technical specialists of assets, threats and suitable projects. Landcare committees of management had some indirect influence with CMA boards, but little influence with newly appointed technical staff. Community leaders who did move to regional body board positions found they lost their local level voice (Farrelly, 2005).

Where community priorities did not fit regional priorities, Landcare Networks lost funding with which to maintain local interest and landholder membership of Landcare (Forge-Zirkler, 2006; Curtis and Cooke, 2006). Regional bodies, for the sake of efficiency and to build their own legitimacy, began to work directly with individual landholders in on-ground works, rather than working through landcare groups (Compton et al., 2009). In 2001-2002, Sobels had found early signs of CMAs 'acting as top-down instruments of government' (Sobels, 2006: 302), and warned of the consequence of their not making good use of the social capital developed within Networks. By 2003, Landcare groups and Networks across Australia had developed a standing agenda of concerns about Landcare's place in NRM: the need for more funding, excessive administration associated with complicated project funding protocols, and the lack of understanding in the NRM system of Landcare's achievements and the value of supporting communities (Love, 2009).

In Victoria, the state government had affirmed its commitment to Landcare:

Landcare is a shared enterprise relying on partnerships; innovation, integration and diversity are required to address complex situations; people achieving and learning together build stronger communities; and regionalism provides an appropriate scale to maximise access and opportunities for local actions. (Second Generation Landcare Taskforce, 2002: 10)

The associated *Victorian Action Plan for Second Generation Landcare* funded ten Regional Landcare Coordinators which operated from the ten CMAs, a volunteer recruitment

initiative and a Landcare and Community Engagement Unit of five people. It also provided funding for small grants to Landcare groups. Commonwealth funding under NHT for Landcare staff meant that Landcare Networks had a least one person paid to organise projects and facilitate community learning and planning. Funding for large projects, however, remained dependent on investment allocation by CMAs against regional plans.

In Victoria, regionalisation came at a point where Landcare membership was retreating from the high levels of the late 1990s. Curtis and Cooke (2006) found that the numbers of local Landcare groups in Victoria had reduced from 890 in 1998 to 721 in 2004, with membership declining from 27,590 to 23,220. New groups were forming, but existing groups were disbanding, going into recess or merging with others at a faster rate. When the present research was initiated in 2006, government managers were looking for ways to better integrate projects at landscape level, but saw regional bodies as the vehicle for those improvements. What influence might Landcare Networks have on changing this perception, and influencing the change shape of NRM governance? Previous analysis of Landcare's influence within the governance regime had concluded that Landcare was state-sponsored community participation in NRM (Curtis and Lockwood, 2000), with limited influence on policy. This research is now reviewed.

### **Landcare and governance of agricultural landscapes**

Community Landcare members think of themselves as a grassroots reaction to government inaction, a network of local activists taking action on matters that government has avoided or has been unable to handle adequately (Campbell, 1995; Carr, 2002). Does Landcare mark a shift in power to the local level and to more participatory decision-making? Within local groups, participatory processes are certainly associated with more on-ground activity to change resource condition. Curtis and Cooke (2006) found the following associated with more successful Landcare groups: having people willing to take on leadership roles; the group being clear where it is headed and having an action plan;

new members being given background information about the group; the group publicly acknowledging the contribution of members to projects; the group having a way of evaluating the success of projects, and making time to look back over its achievements; strong social connections between group members; equity in sharing resources in the group; and willingness to compromise to reach decisions acceptable to most members.

Sobels et al. (2001) found Landcare Networks used and reinforced existing relationships of trust within communities and with government agencies, reducing transaction costs and enabling efficient cooperative behaviour. The scale of the Network organisation brought local credibility and greater influence with government agencies, expressing and generating a sense of empowerment within members and management. Landcare groups and government agency statements have certainly aligned around the rhetoric of 'empowerment' and 'community ownership' (Martin, 1997), and some researchers have viewed Landcare groups as a way governments can revitalise democratic processes (Reddel and Woolcock, 2004).

Internationally, the 1990s saw adoption of participative processes in planning (Lane, 2005) and environmental management in particular (Koontz and Thomas, 2006). In Australia, governments began to use participatory planning, community consultation and partnership structures to tackle contentious environmental issues (Head, 2007). However, the benefits proposed by advocates of community participation have not always been confirmed by research. Many factors make participatory ideals difficult to implement: unequal power between local and higher levels of governance, polarisation between local interests, lack of expertise at local level, poorly designed engagement events, limited funding to support engagement, parochialism and consequent conflict between local and wider interests, and conflict between government policies affecting an issue or place (Armstrong and Stratford, 2004; Dovers, 2005c; Head, 2007).

Even successful engagement with local interests does not necessarily reduce social impacts and can have unintended negative consequences (Lane and McDonald, 2005). For

instance, planning can be captured by rural elites or local exploitation of resources can displace wider conservation interests (Koontz and Thomas, 2006; Leach, 2006). Planning that uses collaborative processes does not necessarily lead to better decisions, especially when community groups lack the necessary social, ecological and organisational knowledge, and the capacity to make decisions and organise action (Lane and McDonald, 2005). The use of simple mechanisms for engaging with 'the community' can ignore not only the diversity of interests but 'the real institutional matrix within which resources are locally used, managed and contested' (Leach et al., 1999: 240)

Landcare has largely escaped the latter criticisms. It has been an effective means of mobilising local knowledge and environmental action, changing norms around land management; it has extended the scope of those seen to have a legitimate interest in rural landscapes to women and to non-farming rural landholders (Lockie, 1998). However, this very success has for some scholars simply confirmed a critique of Landcare as an agent of government. Soon after Landcare's emergence as a force in rural communities, some researchers argued that Landcare groups were state-sponsored local organisations (Martin et al., 1992). Landcare activities were found to be strongly influenced by government funding priorities, operating largely 'within the constraints determined by, and in the interests of, government' (Martin et al., 1992: 190). Government agencies were estimated to be capturing about 80% of the landcare resources provided by the federal government (Curtis, 1998), using the landcare banner to re-badge and win funding for agency activities such as soil conservation, conservation farming, farm planning, revegetation and protection of vegetation at a time when extension staff were being reduced (Lockie, 1995). Landcare groups functioned as a low cost beachhead for the agendas of government programs.

These observations have developed into a critique of Landcare as an instance of *governing-at-a-distance*. Drawing on work on governmentality by Foucault (1991a) and Rose (1996), government support for Landcare has been analysed as an instance of a shift in governing

from direct control by government to individuals governing their own behaviour in ways that meet the interests of the state (Martin and Ritchie, 1999; Lockie, 2000; Higgins and Lockie, 2002; Lockie, 2004). Rather than the state regulating rights and responsibilities between citizens and society, responsibilities are located within networks of personal allegiance and concern, de-politicising environmental responsibilities whilst still governing behaviour (Martin, 1997; Herbert-Cheshire, 2000). Australian governments have been able to claim that they are committed to the environment and agriculture and are responsive to the variability of agricultural landscapes, stakeholders and NRM issues, while at the same time avoiding conflict with landholders over regulation of private property rights (Lockie, 1995).

In Australian agriculture, the dismantling of collective mechanisms for managing risks, such as single marketing bodies, has shifted market risks to individuals, whose practices have come to be seen as the cause of economic success or failure of a farm business. Programs of government support assist farm managers to develop the managerial capacities to pursue economically 'rational' practices (Higgins and Lockie, 2002). Herbert-Cheshire (2001) suggests that 'capacity building' programs like Landcare are directed as much at assisting people 'to work within, and even embrace, the economic and political environment in which they operate', as they are at building managerial skills (Herbert-Cheshire, 2001: 280). The failure of Landcare groups or Networks to challenge high-input farming systems and policy barriers to sustainable management (Lockie, 1999; Woodhill, 2002) has supported this thesis. Landcare groups have certainly viewed the wider institutional system as an impediment, constraining local effort through excessive bureaucracy and insufficient financial incentive (Martin and Halpin, 1998), but groups have had 'no formal political program to change the state or the operation of markets based on some theory of their inadequacy' (Martin and Halpin, 1998: 450).

The concept of post-productivist rural landscapes has seen a further reflection on Landcare's role in governance. Rural landscapes in the European Union show some

evidence of mutual co-existence of enterprises oriented to production, conservation and amenity, backed by the policy systems supporting the integration of those differing functions (Wilson, 2001; Bjørkhauga and Richards, 2008). Argent (2002) found Australian rural landscapes shaped primarily by the productivist ideals of farmers and policy makers. Wilson (2004) did find some impact on rural governance from Landcare groups, which had increased landholder participation in local decision-making and supported a shift to agriculture having environmental outcomes and responsibilities alongside its economic goals. However, Landcare had failed to change established political relationships and policies, which continued to entrench a view of agriculture as economic production and of rural areas as agricultural landscapes. Noting the dominance of state information systems and knowledge and the relative absence of community knowledge in state decision-making, Wilson concluded that Landcare was a government program sponsoring community participation 'without any ambition of autonomous policy-making' (Wilson, 2004: 475).

Looking again at Landcare and governance would seem a pointless endeavour, but for two developments. Until 2000, most research on Landcare examined local Landcare groups, not Landcare Networks. By 2006, however, Landcare Networks had become a significant locus for decisions by local groups and an important interface between local communities and government programs. In moving governance from local to landscape level, and in connecting member groups with other local organisations with environmental interest, Landcare Networks invite re-consideration of Landcare's place in governance.

Sobels (2006) made a major contribution by describing the operation of constituent elements of social capital in Landcare Networks: trust; new rules and norms around land management and community action; a culture of learning, in which people sought information and freely exchanged experiences; identity as a member of a valuable social endeavour; and linkages between locality-based social networks and out to agencies and

professional service providers. Trust was central. Networks could operate efficiently because member groups trusted Network management to act in their best interests, and local group representatives were trusted to communicate honestly between their local groups and Network management. Using Fukuyama's (2001) concept of the radius of trust, Sobels observed trust was 'extended beyond strong ties between a group and its members to weak ties between groups and the Network committees' (Sobels, 2006: 283)

A second development has been the growing body of research on the role of networks within governance, and it is here that this thesis finds its theoretical home. The next chapter sketches the terrain, and identifies questions in that literature relevant to the core action research.



## Chapter 3 Network forms of governance in social-ecological systems

The thesis addresses the question of how governance can better support adaptive capacity in social-ecological systems. At its broadest, governance refers to ‘the processes by which societies, and social groups, manage their collective affairs’ (Healey, 2003: 104).

Governance is played out not just in organisational relationships and administrative protocols, but through ‘the ensemble of rules, norms and practices which structure action in social contexts’ (Healey, 2006: 302). These institutions are an outcome of the ongoing interaction between the agency of individuals and established social processes which Giddens (1984) calls structuration. Institutions ‘give rise to a social practice, assign roles to participants in this practice, and govern interaction among occupants of these roles’ (Young, 2002b: 5). With Young (2008), my interest is in a *thick* rather than *thin* perspective on institutions, in which actors do not simply comply with rules, but engage in practices they assume appropriate to their social role.

In this chapter, I review the strengths of network forms of governance and test the case for approaching Landcare Networks as a network form of governance. I then review research into governance in social-ecological systems, which confirms the strengths of network forms of governance, and finds social networks able to influence policy by deploying alternative framing of problems and solutions. However, constraints within governance regimes are significant, in particular, central control organised around technical rationality, and this raises the question of how much and how community-based network forms of governance can change governance regimes.

### The rise of governance through networks

Recent scholarship has applied the term governance more narrowly than the management of collective affairs, to attempts within Western democracies to improve collaboration between government and non-government actors (Rhodes, 1997; Jessop, 1997; Pierre, 2000;

Kooiman, 2003). Political, economic and social sectors come together to 'articulate their interests, exercise their rights and obligations and mediate their differences' (UNDP, 1997: 9), pursuing this dialogue through to 'prioritising, resourcing, implementing and evaluating public policy' (Head, 2005a: 44). Interest in new approaches to governing has risen as the capacity of hierarchies of state authority to command action have declined. Several long-term shifts are at work. The opening of global markets has spread technologies and allowed movement of capital freely around the globe, displacing local affiliations, weakening traditional family structures and established political mechanisms for dealing with poverty, unemployment, social injustice and environmental crises (Castells, 2004a). Rather than flows of power, claims Castells (2000), flows of information now shape practice, reconfiguring the state as power sharing and the negotiation of decision-making among networks from local to international levels.

Trust in the capacity of representative democracy to secure stability and security is in decline, to the point where this institution has itself become a source of uncertainty (Judt, 2010). Deregulation of labour markets, privatisation or corporatisation of government enterprises, and purchase of government service provision have all remade the role of the public sector as 'steering not rowing' (Osborne and Gaebler, 1993). This shift has been fuelled as well by a neoliberal view of public sector bureaucracies as threatening local initiative with excessive rules and regimentation; a shift in popular culture against authority in general and political authority in particular has made it easier to challenge the assumption that government knows best (Considine, 2006).

Governance through networks offers governments a way to deal with the dilemma of diminishing influence and rising complexity in public policy issues. Networks that take on governance tasks are 'self-organizing, inter-organizational networks characterized by interdependence, resource exchange, rules of the game, and significant autonomy from the state' (Rhodes, 1997: 15). At the margins of command-and-control hierarchies, between jurisdictional levels and between the state and societal organisations, networks

develop to respond to situations where no single actor has the authority or resources to pursue comprehensive action (Hajer and Wagenaar, 2003). The logic of network governance is that while no single actor can solve a problem, all actors have relevant knowledge and capacity to take action within their sphere of influence, a logic suited to wicked problems (Roberts, 2000) where there is little consensus on what the problem is, its causes or its solutions.

Network governance puts interests around the table to make sense of a problem from differing perspectives, to access information and resources from multiple sources and to motivate collective action (Skelcher et al., 2005; Head, 2008). These nodes of collaboration form where actors seek and find advantage in collaboration, with nodes pursuing their own and sometimes competing agendas. Freedom to set agendas give actors the opportunity to think long-term about common interests, rather than being sidetracked by short-term tactics to protect individual interests (Giddens, 1998). Private enterprise, industry groups, community organisations and government agencies can fit together their actions, and adjust plans rapidly in response to changing circumstances. Networks forms of governance therefore offer a partial remedy to the limitations of other policy instruments (Gunningham and Sinclair, 1999): regulation (predictable, but inefficient and inflexible); planning (difficult to implement with multiple interests, rapid change and dispersed power); and economic instruments (efficient, but with unintended effects on individual behaviour and policy outcomes).

The effectiveness of network forms of governance has been established in the substantial literature on public management networks (Barbach, 1998; Agranoff and McGuire, 2001; Provan and Milward, 2001; Sullivan and Skelcher, 2002; Mandell and Steelman, 2003) and policy networks (Goodin, 1996; Kickert et al., 1997; Klijn and Koppenjan, 2000). There are firm understandings of what makes network structures effective (Mandell and Steelman, 2003; Berry et al., 2004; Bell and Park, 2006), of the dynamics of collaboration within and between networks and government decision-makers (Huxham, 2003; Keast et al., 2004;

Boxelaar et al., 2006), and of the ways public service managers can harness networks for public good outcomes (Sullivan and Skelcher, 2002; Agranoff, 2003). With an unintended consequence of privatisation of government services the dispersal of the power, responsibility and expertise required to implement government policy across many organisations, networks have become a way to translate policy into action across public and private actors (Agranoff and McGuire, 2001). Network forms allow flexible response to local conditions and ameliorate the costs of fragmentation (Considine, 2005). Network governance also offers a way to increase social consensus in contested decision-making and maintain community cohesion, resourcefulness and engagement with government (Head, 2007).

For some scholars, the shift to governance means that the state is becoming a collection of networks 'with no sovereign actor able to steer or regulate' (Rhodes, 1997: 57), a shift which can be seen to weaken democratic accountability in decision-making (Jordan, 2001). For others, network governance continues to rely on hierarchy for legitimisation (Scharpf, 1994), and the state retains influence by 'organizing the self-organisation of partnerships, networks and governance regimes' (Jessop, 1997: 575). Public sector actors, with privileged access to intelligence on the agenda of the government of the day, shape the goals and actions of prospective partnerships to fit government's goals (Bell and Park, 2006). On these grounds, Jessop (1997) argues that network governance constitutes an *extension* of government, not a retreat by government.

These are arguments not just about how governance operates, but how it *should* operate. Termeer et al. (2010) identify three preferences within governance research. In a *monocentric* approach, improvements are sought through closer specification of the responsibilities of jurisdictional levels, reducing blurred boundaries, duplication and conflict in functions. In a *multilevel* approach, state power is dispersed '(1) upwards to international actors and organizations, (2) downwards to regions, cities, and communities, and (3) outwards to civil society and non-state actors' (Termeer et al., 2010). Linkages

between jurisdictional levels and public and private interests maintain collective effort, either around general-purpose jurisdictions, or between task-specific institutions that spread beyond and around established jurisdictions (Hooghe, 2003). A third approach is *adaptive governance*, where governance responds to the inherent complexity and unpredictability of social-ecological systems and seeks to match scales and link levels in ways that respond to ecosystems functioning. In examining multilevel environmental governance, the current research aligns itself with the possibility of adaptive governance, while accepting that in Australia's NRM system that possibility must unfold within established jurisdictions and hierarchies of administration.

### **Landcare Networks as network governance**

Landcare Networks appear to be a mechanism that links interests and levels of decision-making and action-taking – a network form of governance. Landcare Networks operate in a context with many of the features that Rhodes (2000) observes suit network forms of governance. Firstly, other options are not available: it is difficult to make markets for the public goods sought; information for decisions is limited; and 'good' decision-making difficult to specify. In NRM in Australia, governments have been reluctant to regulate the land management practices of farmers, preferring voluntary change facilitated by collaborations between government, industry and local communities. Market solutions have appeared only in the last decade (Stoneham et al., 2002), and have not replaced voluntary change as the principal policy tool.

Secondly, Rhodes observes that even when goals are clear, there may be many competing interests that need local resolution. There is no clear implementation path and solutions require learning and haggling between interests. In NRM, policy goals have to be translated into local solutions that fit differing landscapes and their differing patterns of human activity. The interests of conservation, production and amenity, and the interests of differing localities and agencies, compete for priority. There is indeed no clear implementation path – early solutions are abandoned as degradation processes are better

understood, and as industry and climate change. Thirdly, network governance forms develop when people accept they have to cooperate to reach solutions, and there is some anticipation that long-term relationships will reduce uncertainty and the costs of taking action (Rhodes, 2000). The attempt to facilitate collaboration between interests has been a feature of NRM in Australia since the mid-1980s. Government support for Landcare and community participation in Landcare has been one expression of this.

This is the *context* of network governance: Stoker (1998) offers two defining features of the *structures* of network governance. Firstly, these structures organise collective action by drawing together actors from within and beyond government. Secondly, governance networks are autonomous and self-governing, relying on getting things done not through power to command, but through negotiation of voluntary commitments to action between actors. Landcare Network structures fit these criteria. With responsibilities in NRM remaining ambiguous, overlapping and conflicting, Landcare Networks have provided a setting where private and public actors can coordinate their actions. They are community-managed associations between voluntary local groups, with no superordinate controlling structure at regional, state government or national level.

In the initial creation of local Landcare groups, facilitation and technical support was provided by staff of the state agencies (Curtis and De Lacy, 1995; Curtis, 1998). Over time, Landcare Networks began employing their own staff, but have retained their close links with government programs. In some regions in Victoria, their staff are employed by the CMA, but managed by the Network. Staff and management committees have close links with industry groups, community organisations and local industry, through funding and in-kind support, and informally, through cross membership of management committee members in these organisations. The first published research of a Landcare Network, the Ovens Valley Landcare Network in north-east Victoria, found private landholders and government programs each seeking benefits from collaboration. Community participants created the network to have more influence on funding and CMA decisions, while agency

staff saw benefits in a single point of contact with local communities and the opportunity to achieve regional planning goals (Britton, 1997, cited by Sobels 2006). In a qualitative study of two Landcare Networks, Sobels, Curtis, and Lockie (2001) found that the increased scale of operation of Landcare Networks facilitated learning across local groups, allowed for planning at catchment scale and made Landcare more influential in integrating local action and government programs. Oliver (2004), examining community, industry and government NRM partnerships in south-east Queensland, found that skilled and enthusiastic community coordinators drove those partnerships, maintaining commitments from government agencies even as programs and roles changed.

If Landcare Networks can then be considered a network form of governance, several bodies of research offer possibilities for understanding their influence. The shift in planning theory from rationalist to more deliberative and collaborative approaches (Innes, 1995; Healey, 1998) has generated general propositions about collaborative planning (Bryson et al., 2006) relevant to collaboration in environmental management. Research on policy networks has extended understandings of agenda setting and policy development (Kingdon, 1995; Sabatier and Jenkins-Smith, 1999; True et al., 1999) relevant to environmental governance. Institutionalism, with roots in Ostrom's (1990) analysis of institutions for common pool resources, has examined the way networks deal with collective action constraints and stimulate collaboration (Schneider et al., 2003; Lubell, 2003). I have drawn selectively from each of these streams, but take as my starting point the literature on governance in social-ecological systems, which addresses directly the function of networks within environmental governance.

### **Governance in social-ecological systems**

Until relatively recently, environmental science treated humans as external to ecosystems and paid little attention to the institutions that govern human activity, while social science viewed ecosystems as a 'black box' (Folke et al., 2007). Social systems and ecosystems are now understood as coupled social-ecological systems, within which humans create,

sustain and improve the generation of ecosystem services (Berkes and Folke, 1998). While social and ecological components are identifiable, they cannot easily be separated for either analytic or practical purposes (Walker et al., 2006). Social-ecological systems function as complex adaptive systems, where persistence in the face of change in environmental conditions and human use alike evidence a capacity for adaptation when limits are reached.

Rather than assuming that humans can *control* 'nature', it is more accurate to think of humans *navigating* a complex and continuously changing social-ecological system (Berkes et al., 2003). Environmental governance must therefore look to 'manage functional interdependence on a continuing basis' (Young et al., 2008: 86), adapting governance arrangements as ecosystems and social systems change, and as policy implementation changes those systems (Leach et al., 1999). Governance confronts social dilemmas, not just technical problems (Davidson and Frickel, 2004); environmental crises present choices between competing interests and social values, and governance arrangements themselves allocate power to authorise decisions and action.

The literature on governance in social-ecological systems yields three themes relevant to Landcare Networks within NRM: cooperation and competition between levels of governance within multilevel governance regimes; networks as a way to integrate actors within and between levels of governance; and governance and adaptive capacity of social-ecological systems. Each of these themes is now examined.

*Levels of governance cooperate and compete.* Following Cash et al. (2006) and Termeer et al. (2010), I take 'scale' as the spatial, temporal, quantitative or analytical dimensions used to measure or study any phenomena, and 'level' as the units of analysis located at different positions on a scale. Ecosystems operate at multiple spatial and temporal levels, and jurisdictions too are multi-level (national, State, and local government). However, the fit between jurisdictions and ecosystems is problematic. Environmental planning often develops at levels on a spatial scale other than jurisdictional—for example, sub-catchment,



catchment and regional planning. In relation to water quality in Australia, for example, Landcare groups influence landholder practices in relation to fertiliser use and access of stock to waterways; regional bodies set priorities for conservation and repair of degradation for particular waterways; state governments set policy and assessment frameworks for river health; national government attempts to influence governance of water itself, across institutional arrangements for water quality protection, allocation and supply, and water use.

Researchers of governance in social-ecological systems accept hierarchy in jurisdictional levels, but call for linkages and centres of decision-making wherever these are necessary to connect levels and scales, a stance captured well by the term *polycentric* governance (Cash et al., 2006). The significance of linkages between levels lies in the fact that levels of governance do not simply govern different aspects of social-ecological systems – they govern *differently*. Issues and contending interests differ at each spatial and jurisdictional level (Folke et al., 2007). Different forms of knowledge are considered salient, credible, and legitimate at each level of governance (Cash et al., 2003). Policy tools and compliance mechanisms differ (Young, 2006a). Local levels, for example, use a logic of appropriateness in which behaviour reflects social agreement about the right thing to do; state and national levels more often use a logic of consequences that balances incentives and disincentives to influence behaviour (Young, 2006a). Differences between ways of governing are exacerbated, observe Cash et al. (2006), as decision-makers at each level attempt to reduce complexity to fit *their* knowledge and preferred forms of influence.

Interdependencies between levels in ecosystems confounds attempts to neatly fit jurisdictional levels to environmental problems. In ecosystems, levels of larger spatial extent (for example, a forest) are driven by slower variables, creating the context for more localised levels such as a tree, where faster variables influence activity. However, change can occur within a level independent of other levels, and influences can flow up and down the hierarchy (Gunderson et al., 1995b). This understanding has encouraged researchers

of social-ecological systems to challenge the presumption of top-down control within multilevel governance regimes. They propose, rather than while levels govern somewhat autonomously, dealing with the issues and within the culture emergent at each level, they remain dependent on each other.

Three mechanisms have been observed to manage interdependencies between levels – nesting of institutions, bridging organisations and networks. Nesting of institutions (Ostrom, 1990) allows autonomous activity at local level, with central governments securing the legitimacy of local rules within a framework of accountabilities, fair allocation of costs and risks and sanctions around obligations (Agrawal and Ribot 1999; Ostrom 1990; Larson and Ribot 2005). Bridging organisations between levels (Berkes, 2002) allow people to understand the governance issues of related levels and build the boundary objects to support interdependent decision-making (Cash et al., 2003). Social networks connect actors across levels, and support other two mechanisms. In fact, ‘networks’ figure so often in the literature on governance in social-ecological systems that they constitutes a theme in themselves.

*Networks support integration in social-ecological systems.* Environmental problems typically cross jurisdictional and discipline boundaries, affect many parties, and have high levels of complexity and conflict surrounding their definition and solutions (Folke et al., 2007). Government policies and programs that respond to environmental issues are specialised by sector (for example, water supply, land use, conservation), by industry (for example, forestry, agriculture, urban development), and by jurisdiction (local, state and national government), then organised further around issue (such as salinity, pest animals, erosion), by landform (coastal zone, wetlands, rivers, etc), and services (planning, research, extension, regulation). Few organisations can achieve their mission alone, and for any task, many actors will have relevant knowledge, resources and influence. Nor is it easy to ever settle who should have responsibility for what, as the symptoms and causes of environmental problems are not just multilevel but prone to change (Pritchard and

Sanderson, 2002). Today's solution at one level can become tomorrow's problem at a different level.

These exigencies lie behind the use of networks in environmental governance. Sponsoring forums and bodies that bring interests together to think, plan and act is an attractive option for governments wary of complex problems and reluctant to impose regulatory approaches (Head, 2005b). Network forms of governance allow actors to collaborate around horizontal and vertical differences (Imperial, 1999; Wondolleck and Yaffee, 2000; Leach and Pelkey, 2001; Gusteyer et al., 2002; Whelan and Oliver, 2005; Leach, 2006). Operating in social spaces created alongside and between formal hierarchies, differing interests can come to understand and trust each other.

*What matters in governance of social-ecological systems is adaptive capacity.* The vulnerability of ecosystems, the phenomena of non-linear change, and the tendency of governance regimes to lock into particular perceptions and arrangements (Scheffer and Westley, 2007) have prompted interest in the capacity of governance regimes to respond to change and disturbance. The observation that attempts to control variability in ecosystems could increase production but reduce resilience (Holling and Meffe, 1996) developed into an argument for adaptive management, in which policies become hypotheses and management actions, negotiated between differing resource users, become experiments within the social-ecological system (Lee, 1993; Gunderson et al., 1995a). Adaptive management requires trust between actors and a tolerance of uncertainty within the wider governance context. It has often proved difficult to engage resource users and managers in designing management experiments (Lee, 1999). Reaching agreement on goals requires sustained dialogue between competing interests (Innes and Booher, 1999; 2003), but such agreements fare better in implementation than those arrived at by a single authority (Leeuwis, 2000; Schusler et al., 2003).

However, adaptive capacity arises not only from collaborative process, but from integration between levels of governance. In co-management, decision-making is

decentralised to the local level, and government agencies and local resource users share power and responsibility (Olsson et al., 2004a; Carlsson and Berkes, 2005). Ostrom's (1990) observation of the effectiveness of nested hierarchies has more recently been taken up in the concept of adaptive governance, in which local and adaptive management of ecosystems is set in a multilevel governance context. Three essential features of adaptive governance have been proposed: analytic deliberation between interests; nesting of institutions; and use of a mix of institutions, such as government planning hierarchies, markets and regulation (Dietz et al., 2003). The polycentric decision-making supported by nested levels of governance balances centralised and decentralised control (Imperial, 1999), while processes of collaborative planning and deliberative decision-making allow goals to be negotiated and solutions developed between interests (Folke and Berkes, 2003; Olsson et al., 2004a).

Brunner and Steelman (2005) construct adaptive governance slightly differently. They argue that the best form of democracy is not one where public sector managers are the mainstays of the public interest, but one where citizens are given responsibility for the common good. At local level, consensus (not unanimity) between competing interests is possible. Ambiguity and incomplete knowledge can be accepted and taken into account in the design of action, and adapted as action is taken. To this, Brunner (2010) has added the need for policy that learns from what happens in implementation, and science that focuses on what is effective and ineffective in particular circumstances.

Finally, using case studies of environmental governance, Folke et al. (2003) step past the question of relationships between levels and identify four emergent properties of social-ecological systems that manifest and support the capacity to adapt.

- *Learning to live with change and uncertainty in ecosystems.* Assuming predictability and managing for stability can have the contrary effect of making social-ecological systems less resilient to change. Better decision-making is possible when uncertainty is assumed.

- *Combining different types of knowledge.* Adaptive capacity requires place-based, practical, experiential knowledge based on long time series, and experimental ecological knowledge to build understanding of structure and function in social-ecological systems.
- *Diversity of individuals, institutions and organisations in governance.* Functions that differ and overlap build redundancy into governance regimes. This allows efficient transfer of information across levels of governance and subsystems within large heterogeneous geographic areas, and differentiated and rapid responses to change in particular localities.
- *Creating opportunity for self-organisation.* Diversity across scales, redundancy in functions and autonomy in decision-making allow for memory of past crises, states and responses to generate adaptive responses. Facilitation of reflective learning supports that self-organisation.

Research on governance in social-ecological systems now seems to be pursuing three interrelated questions. The first is the fit between institutions and ecosystems. How well does the scale (temporal, spatial, functional) of an institution relate to the ecosystem being managed, and affect the effectiveness and robustness of the institution (Folke et al., 2007)? In a multilevel regime, where is information best drawn together, and where should responsibility for collective action be centred? The second question is how levels of governance integrate. The demands of managing at any single level, and the specialisation that develops at each level, mean that connections to other levels can weaken (Walker et al., 2006). What enables levels to negotiate a fit between their interests, in a way that respects the rights, responsibilities and knowledge of actors at several levels (Young, 2002b)?

A third question is how governance regimes change. What precipitates change in institutions and the relationships between institutions? While a good deal is known about

effective governance processes, we know considerably less about how governance *regimes* change, and how they change towards being more adaptive. It is often economic, environmental and social forces larger than the regime itself that compel those whose interests dominate the regime to initiate change, a premise of the advocacy coalition framework (Sabatier, 1991), and of theories of punctuated equilibrium (True et al., 1999). Change, however, also develops incrementally, within governance regimes. The role of networks and network governance in such change is pertinent to the current inquiry, and has been the focus of considerable research.

### **How social networks and network governance influence environmental governance regimes**

In supporting integration of activity across levels, networks remedy some of the limitations of hierarchical organisation. In this, they might be viewed as enabling central control, but the conclusion of scholarship is that networks can strength collaborative activity *and* change policy in governance regimes. This dual role—of integration in governance regimes and change of governance regimes—is central to maintaining the adaptive capacity of a social-ecological system:

The ability to create the right links, at the right time, around the right issues in multilevel governance systems is crucial for fostering responses that build social-ecological resilience and maintain the capacity of complex and dynamic ecosystems to generate services for human well-being. (Olsson et al., 2007) <sup>1</sup>

Social networks and network governance are related but distinct phenomena. Networks are social structures that emerge as trust and reciprocity develop around shared interests, generating what has been called bonding social capital (Stone, 2001; Franke, 2005), and drawing in resources not available locally through weak ties to other networks (Granovetter, 1973; Linn, 1999). Network governance consists of stable social spaces, often with government mandate, within which multiple parties come together to make

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<sup>1</sup> Articles in the web-based journal *Ecology and Society* are not page numbered.

decisions and organise action. For all their differences, hierarchy and network forms of governance remain interdependent social structures: the hierarchies of government planning and service delivery rely on network forms to integrate decision-making and action; network forms rely on hierarchy for legitimation (Scharpf, 1994). Networks and network forms of governance combine synergistically to influence governance regimes, but have distinct effects.

*Network governance forms develop agreement on problems and solutions, and relationships in support of action.* Network governance brings together differing interests with distinctive views of solutions and of what is problematic. In polycentric decision-making, network governance enables parties to understand their differences and their interdependencies, so that their respective interests and capacities can be engaged around shared goals (Innes and Booher, 1999; 2005; Imperial, 1999; 2005). Tensions between the accountability demands of centralised governance and the action possible through decentralised governance (Imperial, 1999) can also be negotiated. Network governance forms allow participants to understand the dynamic interaction between ecological and social processes (Westley et al., 2002; Olsson et al., 2007), respond more promptly to changes in context and priorities, and draw in social memory of past events (Olsson et al., 2007). Nuances of meaning present when people decide what to do can inform their subsequent action in their respective spheres of influence, shortening the distance between agreement and action (Westley, 1995). These understandings develop and are acted on in the crucible of relationships in which people are prepared to cooperate, relationships that may then affect institutional arrangements. Some researchers of governance have gone so far as proposing network forms as sites of innovation in the relationships between state and society (Considine, 2006).

Studies of co-management identify the conditions that enable such relationships to develop (Folke and Berkes, 2003; Olsson et al., 2004a; Berkes, 2007a). Time matters: mechanisms such as multi-stakeholder groups and bridging organisations (Berkes, 2002)

enable actors to work together over time, coming to understand each other as individuals, to trust each other and to understand problems in a new way. Leach et al. (2002), for example, found that watershed partnerships of agencies and public interest groups in Washington and California required four to six years to reach the point where they could develop and implement projects. Money is also important: research, consultation and action at the periphery of government hierarchies benefits from secure funding. Monitoring of ecosystem processes by local communities increases understanding of ecosystem functioning and supports change in management practices and institutions (Cundill and Fabricius, 2009).

*Networks connect information and action across hierarchies and social networks.* Network governance relies for its effectiveness on the reach provided by social networks. Information relevant to wicked or emergent problems is typically dispersed across the administrative hierarchies of government agencies and many different social networks: networks draw in information and ideas and extend out new understandings of problems and actions. Linking multiple centres of expertise in a network of networks allows different nodes to take up decision-making roles flexibly as issues emerge, with more rapid adaptation than hierarchies alone, or individual networks alone, might manage (Olsson et al., 2004a; Olsson et al., 2006). Networks also span levels of governance, creating stronger interpersonal ties and strengthening belief in the procedural fairness of the decisions made by network governance forms (Schneider et al., 2003).

The Kristianstads Vattenrike Biosphere Reserve in southern Sweden provides an example of the synergies between network governance and social networks (Olsson et al., 2007). A single organisation connected separate social networks for bird conservation, cultural heritage and water quality, enabling people to bring their differing knowledge together and to explore and align their interests around a common vision for the Reserve. As that vision developed into specific proposals, the differing networks became a way to these proposals into different sectors, specialist agencies and levels of governance.



*Social networks can mobilise change in governance regimes.* Networks connect differing knowledge and capacity for action around shared interests, but when a network's framing of problems differs from the dominant framing in a governance regime, networks can change a governance regime. The advocacy coalition framework holds that incremental policy change is negotiated between competing networks of policy makers, scientists, public sector managers and NGOs (Sabatier, 1998). Coalitions align around core beliefs. Frequent interaction in the network spreads new information and enables participants to respond to opportunities for influence across government, its administrative hierarchies, the legal system and the media. Advocacy coalitions, however, are only able to change secondary policy beliefs: 'beliefs concerning the seriousness of the problem or the relative importance of various causal factors in specific localities, policy preferences regarding desirable regulations or budgetary allocations, the design of specific institutions, and the evaluations of various actors' performance' (Sabatier and Jenkins-Smith, 1999: 122). Change in the core beliefs with which policies are aligned is triggered by events external to these networks, such as economic or social crises, which lead to reframing of policy problems.

Theories of punctuated equilibrium make a similar observation: reframing of policy problems only happens when an issue shifts to the macro-political arena (True et al., 1999). The specialist policy networks that do the day-to-day work of policy development are conservative forces producing incremental change. Macro-political concern allows competing agency and civic interests into a policy network, where they often 'insist on rewriting the rules, and on changing the balance of power that will be reinforced by new institutional structures' (True et al., 1999: 101).

Research in environmental governance, however, suggests that networks outside established policy communities can produce a new framing of problems within policy. Networks of networks called 'shadow networks' (Gunderson et al., 1995b; Olsson et al., 2006) can connect leaders within local communities, thought leaders within scientific

disciplines, activists outside government, and policy entrepreneurs in policy communities to make the case for change. For example, in management of Florida's Everglades, epistemic communities have generated new views of problems and spread them through shadow networks, making them available for adoption at times of ecological crisis (Gunderson and Light, 2006). In an analysis of sixteen case studies of major change in water policies (Huiteima and Meijerink, 2010), policy entrepreneurs seized opportunities presented by political crises to challenge the frames embedded in current policy goals and associated institutional arrangements, but they often worked collaboratively within shadow networks operating at the margins of established policy communities. Those networks drawing on the particular skills and capacities of individuals in, for example, developing new concepts, communicating ideas, or finding common ground with stakeholders (Huiteima and Meijerink, 2010).

Shadow networks also have their visionaries, articulating a vision of what is possible in the system (Gunderson, 1999; Olsson et al., 2007), weaving a narrative that draws on existing values but creates new meanings that previously unaligned social groups can support (Westley et al., 2002; Ernstson and Sörlin, 2009), and producing opinion shifts in the wider society (Scheffer et al., 2003). But visionaries require what Olsson et al. (2007) call 'stewards', facilitating the flow of information and knowledge from multiple sources, creating links across governance levels. Whatever the alternative vision they nurture, shadow networks need as well strong links to formal policy networks, to translate ideas into action. Policy entrepreneurs in water governance have a distinct skill set: coalition building, selective use of decision making forums and the ability to reframe issues when opportunities arise in policy making (Huiteima and Meijerink, 2010). Networks achieve change not simply because of network structure, but because some people in the network are skilled in recognizing patterns that signal a limitation in institutional arrangements, in building relationships that create a network, and using specialist knowledge to make it engaging and comprehensible for decision makers (Moore and Westley, 2011).

A related line of inquiry is examining the pathway toward policy influence. Olsson et al. (2004b) conceptualised the shift to co-management of a wetland landscape in the Kristianstads Vattenrike Biosphere Reserve in southern Sweden as a three-phase process of change: preparation, transition and building resilience. In the *preparation* phase, a local policy entrepreneur built social connections between individuals in a local organisation, and focused their interactions through a municipal organisation that eventually became the Biosphere Office. Local actors changed from seeing the wetlands as a problem to seeing it as a valuable resource. A comprehensive vision reframed conservation of the wetlands as a development opportunity through which the values of the wetland landscape could be protected. Members of the Biosphere Office came from local interests and from across levels of governance, and became 'the nodes of an emerging policy network' (Olsson et al., 2007). The support of a municipal politician, who realised that environmental values were under threat and embraced the vision of the Biosphere Office, created a window of opportunity to a second phase of *transition*. The municipality sponsored the project, allowing a wider set of organisations to be drawn in, each around benefits they valued. A third phase then followed, of *building resilience* of the new governance arrangements. Partnerships were stabilised, and influence and collaboration extended to decision-makers, scientists and opinion makers beyond the municipal level.

Gunderson and Light (2006) observe that the potential for change can be created by an ecological crisis, a political crisis, or by epistemic communities able to question current belief and generate alternatives. The preparation phase prior to crisis is critical, and Olsson et al. (2006) isolate three interconnected elements. A network develops between individuals in different parts of the social system, linking individuals who are nodes of expertise within their own organisations or communities. This network gradually draws together knowledge across the system, reshaping and pushing out new understandings of problems and solutions across the social system. Finally, leaders within the network integrate scientific understanding, articulate a vision of how things could be and advocate this with influential people beyond the network.

The preparation phase can take many years, and windows of opportunity can appear serendipitously. Post-apartheid water law reform in South Africa provides an example (Biggs et al., 2008). New policy enshrined equity and sustainability as policy commitments across government, and those seeking reform made use of this commitment to achieve rapid change in water law. However, a long preparation phase preceded this. Responding to the degradation of rivers, scientists had over fifteen years formed research networks that developed understanding of the dynamism and heterogeneity of river ecology. A research program linked researchers to water supply managers and conservation interests concerned about the health of rivers. This network gradually reached an understanding of the need for policy to require allocation of water to the environment. When the shift from apartheid to democracy introduced a political drive for equity in resource allocation, the network seized that window of opportunity to successfully propose formal allocations to environmental uses (Biggs et al., 2008).

Networks and network forms of governance can therefore converge in a process of institution-building in which new relationships develop as people take action on pressing problems. New relationships allow new action; new action confirms and extends new relationships. However, the constraints on change in governance regimes are severe. Examination of influence in regimes is unavoidably an investigation of how constraints are challenged or side-stepped, or more commonly, how dominant practice undermines what Healey (2006) has called 'episodes of innovation'.

### **Constraints on change in environmental governance regimes**

Longitudinal case studies of environmental governance reveal that even when most parties recognise an environmental problem, there is very slow change in practices at each jurisdictional level and little cooperation across levels to address major threats (Gunderson et al., 1995a). While policy and plans may appear to change, management systems can become 'pathologically resilient ... trapped in a structure that is not only resistant to change, but able to withstand change' (Gunderson and Light, 2006: 324).

Governance systems stabilise around an institutional 'pathway', making the costs of switching to alternative paths high compared to the benefits from operating and cooperating more skillfully around the established path (Pierson, 2000). For example, NRM in Australia has developed a mix of government-sponsored planning, joint action by agencies and community groups and largely voluntary landholder practice change, with limited use of market mechanisms and regulation. Policy may be incomplete and poorly integrated, but public and private actors have built relationships, competence and shared understandings around these governance arrangements; most are somewhat dissatisfied with them, but most have learnt how to make the arrangements work in their interests.

Fragmentation of responsibilities across scales and levels makes it difficult to coordinate responsibilities for governance, though a measure of redundancy and competition around responsibilities maintains the resilience of administrative systems (Toonen, 2010). Years of incremental response to problems make for 'a bureaucratically leaden and ineffectual resource management system which seems to work best when it works against its own formal purposes' (Pritchard and Sanderson, 2002: 151). Government agencies operate within portfolio-based government in which natural resource planners for particular resources – water, land and forests – ally themselves with dominant interest groups around their resources and end up captured by those interests, at the expense of other public interests (Davidson and Frickel, 2004; Brunner and Steelman, 2005). Central controls often come at the cost of rules and rights that fail to take account of local variations in conditions and the knowledge and rights of local resource users (Ribot and Larson, 2005), reducing the exposure of government policy and management to feedback on changing conditions and on the effectiveness of government programs.

Central governments could of course step away from direct management of local use and provide the legal frameworks within which local resource users devise their own institutions. Despite the manifest benefits of effectiveness, efficiency, robustness and legitimacy in governance (Ostrom, 1999b), superordinate levels are often reluctant to do

so, in particular, to devolve the countervailing power that would allow local levels to function autonomously. The subsidiarity principle (of vesting authority in the lowest level of social organisation capable of solving pertinent problems) is taken up only with great circumspection, and governments are slow to develop the framework of accountabilities that legitimise local level decision-making and integrate actions across levels of governance and policy domains (Morrison et al., 2004; Dovers, 2005b; Larson and Ribot, 2005; Adger et al., 2006; Bell and Park, 2006; Tacconi, 2007; Marshall, 2008). In fact, higher levels have been observed to construct cross-level interactions to maintain their power (Adger et al., 2006).

When government bureaucracies do devolve power, the habits of their managers often undermine this devolution. Managers tend to assume that performance develops in a linear way, rather than requiring long periods for development of capacities (Marshall, 2008); they do not allow adequate resources to build capacity, and attempt to control through procedure rather than giving feedback on performance. Reliance on science to guide policy and its implementation gets in the way not just of using local knowledge, but of negotiating with the differing interests that constellate at each level of spatial and jurisdictional scale. Evidence as to the limitations of such practices fails to displace their pervasiveness in many governance regimes. Ways of seeing the world and the work routines that embody those views 'deflect the forces of change in institutional arrangements and in the process enhance the effects of path dependence' (Young, 2002a: 76).

Government bureaucracies could also learn from mistakes and difficulties. However, Australian experience is that a cultural bias with government NRM programs toward delivery of stated outputs limits learning (Allan and Curtis, 2005). Unwillingness to seek and consider feedback on management actions has a significant impact on community organisations, for their contribution to adaptive capacity depends not simply on their current influence, but on attention, in the governance relationships within which they are

embedded, to improving processes of decision-making and learning (Carlsson and Berkes, 2005; Cundill and Fabricius, 2009).

Nor are those seeking innovation in governance practice necessarily alert to the power of established practices. Bell and Park (2006) provide a pertinent example. In 2002, thirty-six water sharing committees were formed by the State Government of New South Wales, and local stakeholders charged with the task of recommending water allocation for regional catchments. 'By conferring legitimacy to selected actors,' observe the researchers, 'or by reducing or even eschewing the representation of some interests, the government plays an active role in setting agendas, framing debates and influencing outcomes' (Bell and Park, 2006: 72). Having reached agreement on water allocation, after often painful deliberation between the competing interests represented on the committees, participants were shocked to find their recommendations overridden by a ministerial decision.

Fields other than environmental governance have also struggled with the difficulty of changing governance regimes. Examining change in urban planning, Healey (2006) proposes that governance practice can only be understood by viewing episodes of innovation in the context of practices, networks and discourses of surrounding governance processes, processes which are embedded, in turn, in wider governance cultures that legitimate and constrain modes of governance. Healey's (2006) analysis draws on the three structuring processes identified by Giddens (1984): the allocation of material resources such as finance, labour, technologies and information; the allocation of power to regulate the behaviour of others; and the flow of ideas that shape social values and identities. Episodes of innovation appear continually, but to change governance regimes, these episodes must 'challenge and shift an array of already routinized governance processes, with their complex mixture of conscious and taken-for-granted modes of practice' (Healey, 2006: 305).

## Questions addressed by the thesis research

I now draw down the research reviewed in Chapters 2 and 3 to three gaps in the existing literature on governance of social-ecological systems that warrant further research:

- How do community-based network forms of governance influence governance regimes?
- How does reframing develop within a governance regime?
- What facilitates inquiry into governance by actors in a governance regime?

How do community-based network forms of governance influence governance regimes?

Community-based governance networks may improve governance processes in their immediate locale, but can they change the governance regime in which they operate—its policies, its ways of making decisions and organising action, the relationships which go with this activity? The corresponding question for the core action research is how Landcare Networks understand their influence within NRM governance.

The potential contribution to adaptive capacity by community-based organisations like Landcare Networks lies in their close relationship with ecosystems and users of ecosystems. Local communities are understood here as ‘a fairly small group of people who share a common place of residence and a set of institutions....’ (Capistrano et al., 2005: 374), with no assumption that those people have homogenous interests (Agrawal and Gibson, 1999). Local communities are often the first to sense change and be affected by change in ecosystems (Fabricius et al., 2007). Local knowledge can provide understanding of the dynamics of ecosystems and human use to inform revision of practices (Berkes et al., 2003); local capacity to learn allows for adaptation that maintains the integrity of ecosystems and the viability of patterns of human use (Armitage, 2005; Fabricius et al., 2007).



Local communities, however, operate within a multilevel governance regime. As one researcher of such communities observes, 'attention to the community level alone is never likely to be sufficient to provide for effective management' (Berkes, 2006). Network governance provides local communities with a measure of influence in the implementation of government policies, but a paradox of the development of governance institutions within communities is that this often depends on support from higher levels (Curtis and Lockwood, 2000; Lane and McDonald, 2005; Considine, 2006), often in the form of a 'powerful champion at the central government or supra-national level to help open a space for new forms of local action' (Considine, 2006: 11). While there is some evidence that devolution is more likely where local people demand greater authority (Larson and Ribot, 2005), this is a perilous path for community organisations.

Does central sponsorship, a key feature of Landcare, weaken their autonomy as local organisations, so that they provide a convenient accommodation to the rigidities of hierarchy and the faltering credibility of representative democracy, while the state controls the agenda? Does their influence extend to the definition of problems, or to the way decisions are made between local, landscape and regional levels? Landcare Networks, as the previous chapter concluded, may open new lines of influence not previously available to local Landcare groups. Individuals and local groups in Australian rural settings have been observed influencing policy within the networks of association in which policy is implemented. Cheshire and Lawrence (2005), for example, found individuals and organisations at local level able to influence the agenda of national government projects. Kelly (2005), investigating perceptions of participatory process in NRM projects in south-west Queensland, found landholders aware of changes in power relations at each stage of a project, and astute in deciding at what stage it was worth influencing agenda and process – shifts that were less apparent to government staff, who believed they were sharing power (Kelly, 2005). The previous assessment of Landcare as a form of governing-at-a-distance (Lockie, 2000; Higgins and Lockie, 2002), with little policy influence (Wilson, 2004) may need to be qualified.

How does reframing develop within a governance regime?

Participants in the peer groups of the Readiness Project changed their view of Landcare in NRM governance to the point where they began develop a new framing of the problems policy should address. This opened a second question in the literature on change in environmental governance regimes – how does reframing develop? Various forms of network governance have been found to allow differing interests to agree on relevant problems and suitable solutions (Armitage et al., 2007; Olsson et al., 2007; Berkes, 2009; Plummer, 2009), while shadow networks support the communication of new frames, linking research, management and policy professionals and providing a base from which policy entrepreneurs influence policy (Gunderson et al., 1995b; Olsson et al., 2006; Meijerink and Huitema, 2010).

What is less clear is how reframing takes place. How does a new way of seeing environmental problems develop, not just as a possibility, but to the point where its proponents know it to be a viable alternative or necessary addition to established frames? The constraints on change in governance regimes lie not just in control over allocation of resources and power, but in the pervasiveness of particular ways of seeing environmental problems, a cognitive hegemony that influences all actors in the governance regime. In Chapter 8, the discussions in the peer groups of the core action research are used to provide insights into how reframing develops.

What facilitates inquiry into governance by actors in a governance regime?

The action research methodology used in the research led to reframing and commitment to action to improve Landcare's influence in management and policy decisions and with that, adaptive capacity. If governance regimes can do more to support adaptive capacity in social-ecological systems, how can research be conducted in a way that generates knowledge useful to those who can take action to improve governance? Constructivist epistemologies point toward engagement with social actors in understanding how *they* understand their situation; action research methodologies toward action as the locuse of

understanding and change. Chapter 4 now takes up this issue, first with a review of options for the researcher, then with a description of the way the current research approached actors as co-researchers investigating their own practice.

## **Chapter 4 Research methods**

Chapter 1 described the choice of action research as a methodology, and the relationship between the core action research and the thesis research. In this chapter, I provide a rationale for using participatory action research in an inquiry into the practice of governance. I describe the methodological commitments associated with such an inquiry, the conceptual tools and skills used in facilitating this inquiry, and the methods used to gather and analyse the data.

### **Participatory inquiry in environmental governance**

Environmental problems are beset by uncertainty as to their causes and consequences (Holling, 2001), and the focus of competing interests and multiple worldviews (Davidson and Frickel, 2004). With differing values and substantive interests come differences in the criteria against which people judge governance relationships as successful or otherwise, and which might be used to assess progress towards shared goals or decide what actions are effective (Bellamy, 1999; Conley and Moote, 2003). This epistemological plurality is one force behind the shift to network forms of governance, but it also has implications for research methodology. Funtowicz and Ravertz (1992) proposed a new type of science for environmental policy issues, a 'post normal' science that would not follow the problem-solving of 'normal' science. It would assume uncertainty, rather than ignoring it, make values explicit, and build arguments through interactive dialogue rather than through formal deduction based on controlled experiments (Funtowicz and Ravetz, 1993). Citizens would be part of an extended peer community that assessed the quality of scientific information and contributed relevant knowledge (Funtowicz et al., 1999).

Subsequent attempts fall short of this aspiration. An examination of research in ecological economics, technology assessment and science and technology studies—inter-disciplinary areas where post-normal science might be expected to develop—found little evidence of participatory process in development of research findings, nor of recommendations for

policy action (Kastenhofer et al., 2011). In any case, argues Goeminne (2011), normal science has only ever been political, in that ‘matters of concern are – in our scientific culture – always already framed as matters of fact’, a positivist orientation which ‘serves as the first and preeminent basis for policy-making’ (Goeminne, 2011: 741). Economic and environmental interest groups have learned to speak the language of that science (Kapoor, 2001; Ferreyra, 2006), which remains a science in pursuit of optimal solutions, where knowledge production is separate from the design of solutions and from action to implement those solutions.

Rhodes (2000) observed that network governance cannot be understood from any single perspective and argues for research at the level of practice. Each participant in a network will have their own stories about that network, its management and its difficulties: ‘governing structures can only be understood through the beliefs and actions of individuals’ (Rhodes, 2000: 85). The current research approached individuals as practitioners within a community of practice, within a multilevel governance regime. I set out to develop with Landcare Network staff and management understanding of Landcare in NRM governance, in the midst of on-going action and with implications for their practice. This is participatory research, and action research.

Participatory research methods have been cultivated in rural and agricultural systems development since the 1970s, in particular in Participatory Rural Appraisal (Chambers, 1994; 1997; Webber and Ison, 1995), and in community-initiated research addressing social injustice (Fals Borda, 2006; Rahman, 2006). Contemporary NRM has seen many approaches to participatory planning, but few which take a constructivist approach to knowledge making within planning processes. Social learning methodology is one such attempt (Steyaert and Jiggins, 2007). Rooted in catchment planning, it assumes that knowing constructed is in action, and supports those with a stake in the issue in examining differing constructions of problems, stakeholdings and institutional responses. The goal is the design of action directed toward transformation at socially and ecologically meaningful

scales, but knowledge itself is understood to be a necessary part of what is transformed (Steyaert and Jiggins, 2007; Collins and Ison, 2009). Social learning methods focus attention on the natural, political-economic, institutional and human dimensions of an issue, as well as their relationships between stakeholders, and help actors to critically question their own perceptions, interests, values and practices in relation to the issue at stake, and become trapped by their day-to-day problems and positions (Groot et al., 2002).

Action research is a generic methodology, one of a family of participatory methodologies which includes, among others, participatory research, action science, participatory rural appraisal and participatory evaluation. It has had some application in environmental management (Castellanet and Jordan, 2002; Ferreyra, 2006); in the current research, the methodology has been used to support inquiry into practice.

### **Inquiry into practice**

Action research brings five distinctive commitments to research activity (Reason and Bradbury, 2006: 2): to practical knowledge 'that is useful to people in the everyday conduct of their lives'; to communities of inquiry in which people interact as equals; to ways of knowing, as an 'active evolving process of coming to know rooted in everyday experience'; to human and ecological flourishing; and to emergent form in understandings and the process of inquiry between people. Kurt Lewin is credited with coining the term *action research* when he called for 'action-research, a comparative research on the conditions and effects of various forms of social action, and research leading to social action' (Lewin, 1948: 202). The method he proposed holds good today: a spiral of steps, 'each of which is composed of a cycle of planning, action and fact-finding about the result of the action' (Lewin, 1948: 206).

Action research develops understandings of social problems in order to achieve change. It engages those who live and work in a situation in developing understanding, alternating between action and critical reflection to generate new understandings. As an inquiry

method, *participatory* action research is founded on an epistemology of practical knowledge, which assumes that people:

- work in complex situations, making meanings with the patterns observed, which are sometimes explicit, often implicit, but always present;
- are purposeful, considering and choosing ends as much as they consider and choose how best to achieve those ends;
- frame and reframe problems, so that both purpose and relevant features of the situation come into focus;
- reflect on action, particularly when actions do not produce intended results, to discover tacit knowledge imbedded in their own action and the responses of others (Argyris et al., 1985).

Participatory action research responds to the interest of science in valid knowledge by creating conditions for public testing and potential disconfirmation of knowledge claims. The peer groups provided a public space in which participants negotiated their practice. The concept of practice is taken up here as a theoretical perspective that allows 'understanding of the way people negotiate in a structured and meaningful way the challenges they encounter in life's course' (Wagenaar and Cook, 2005: 149). Practice is always social practice, a production of meaning within relationships that are constitutive of identities and the source of coherence within communities of practice.

Wenger (1998) defines communities of practice as people who share a common interest in a field of human endeavour, whose relationships have developed over time and acquired a history, and who work together to develop their practice. In such communities, all elements of practice—concepts, tools, symbols, stories, routines, rules and habits—are open for confirmation or challenge in the flow of action or in reflection on practice. Practices, observes Foucault (1991b: 75) have 'their own specific regularities, logic,

strategy, self-evidence and “reason”’. In a participatory inquiry, the concept of practice allows engagement on practitioners’ terms with the world of doing, sensitising the inquiry to a logic of pragmatism and standards of knowing that respond to ‘the pluralistic, open-ended, moral-political character of the everyday world’ (Wagenaar and Cook, 2005: 141).

The inquiry group becomes a community of inquiry within a community of practice (Reason and Bradbury, 2006). Park (1999; 2006) describes how research driven by the goals and inquiry efforts of the members of a community opens up *relational knowledge*, in which each knows and seeks to know the other. Park contends that the intimacy of this interaction improves the quality of representational knowledge, but also creates a platform for the development of *reflective knowledge*, in which participants critically examine their assumptions about worthwhile practice. This brings the moral dimension present in practice into inquiry, to act as ‘a goad for people to engage in activities aimed at social change’ (Park, 1999: 148).

While the researcher may need such distinctions, practitioners themselves more often interact out of an epistemology of practical knowledge (Argyris et al., 1985) or epistemology of action (Steyaert and Jiggins, 2007), in which knowledge is produced in the process of acting. In supporting the impetus of issues emergent in practice, action research draws deeply on pragmatist philosophy. Dewey (1933) approach to knowledge was bound to and embodied in personal experience, with ‘truth’ to be found in the consequences of action, has influenced the practice focus of action research as it has developed in the United States. More recently, Richard Rorty has elaborated a position on knowledge congruent with action research:

We cannot regard truth as a goal of inquiry. The purpose of inquiry is to achieve agreement among human beings about what to do, to bring consensus to the end to be achieved and the means to be used to achieve those ends. Inquiry that does not achieve co-ordination of behaviour is not inquiry but simply wordplay.  
(Rorty, in Reason, 2003: 104)



## Theories of action as a heuristic

In the current research, engagement with practice the concept of *theories of action* was used as a heuristic within facilitation of the peer groups and in subsequent analysis. This concept holds that embedded in every action is a *theory* of action (Schön, 1983; Argyris et al., 1985), expressed in the form 'in situation S, if you intend consequences C, do A, given assumptions  $a_1 \dots a_n$ ' (Argyris et al., 1985: 80). Human beings act purposefully, considering and choosing ends as much as they consider and choose how best to achieve those ends, framing and reframing problems, so that both purpose and relevant features of the situation come into focus.

Theories of action are constructed in the service of effective action, assembled from ideas and information in the culture and providing efficiency and stability in perception and response (DiMaggio, 1997; Dervin, 1999). As for components of such theories, Argyris has given attention to governing values, which provide guidance to cognition and action, and action strategies, which specify the sequence of actions required to created intended consequences (Argyris et al., 1985). For my purposes, I take a theory of action to be a set of *actions* a person chooses to achieve a *goal*, in a *situation* with particular features and forces. All these work together to form a theory of action (see Figure 4.1, page 88), and all are treated here as assumptions that influence judgment and action. Theories-in-use can differ from espoused theories:

When someone is asked how he would behave under certain circumstances, the answer he usually gives is his espoused theory of action for that situation. This is the theory of action to which he gives allegiance, and which, upon request, he communicates to others. However, the theory that actually governs his actions is his theory-in-use (Argyris and Schön, 1974: 6-7).

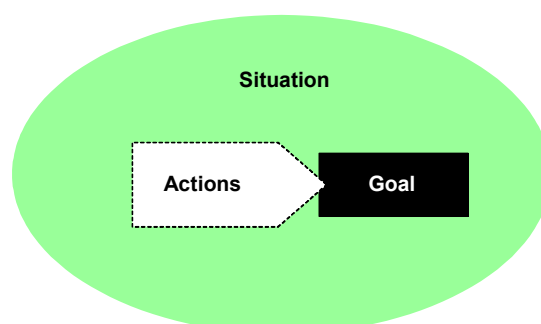


Figure 4.1 Elements of a theory of action

## Selection of Landcare Networks

Methodological commitments to participation in an inquiry into practice had the immediate implications that staff and members of management committees of Landcare Networks had to be willing to participate in the Readiness Project peer groups, and to participate willingly as co-researchers. In deciding which Landcare Networks to approach, I sought diversity on matters I thought would reveal differences and similarities around the research question (Stake, 1995: 4). Two dimensions were relevant: Network management arrangements and the type of social landscape in which the Landcare Network operated. Table 4.1 page 89 characterises the participating Landcare Networks against these two dimensions, and describes the development task each brought into the peer groups. Management arrangements are described through two features: a Network's *management structure* and its *planning processes*. Some Networks had *committees of management* made up of representatives of local groups; others were *coalitions* of groups which met around shared interests but did not have a governing body. Planning processes varied from *strategic planning* which set long-term direction and generated opportunities, to *action planning* which responded annually to member interest

Table 4.1: Comparison of participating Landcare Networks

Network	Area /Hectares	Member groups	Social landscape	Management arrangement	Development task	Peer group participants
Yarra Ranges Landcare Network	25,000	11	Rural Amenity	Coalition/ Information sharing	Develop cooperation between Landcare groups, and structures to support this	Coordinator
Wannon network	40,000	8	Production	Coalition/ Information sharing	Get local Landcare groups interacting and looking ahead	Facilitator
Watershed 2000	80,000	5	Production	Management committee / Action planning	Reconnect to what landholders want, and bring new blood into management	Facilitator, Chairperson
Lismore Landcare Protection Group	80,000	7	Production	Management committee/ Action planning	Develop long-term goals and clarify partnership with member groups	Coordinator, Facilitator
Upper Barwon Landcare Network	150,000	12	Transitional	Management committee/ Action Planning	Connect more to broadacre farmers and develop a strategic plan	Coordinator, Facilitator, Chairperson
Lake Wellington Landcare Network	1,096,210 <sup>2</sup>	36	Production	Management committee/ Action planning	Develop a strategic planning process driven upwards from local Landcare groups	Coordinator, Member of Committee of Management
Yarram Yarram Landcare Network	118,000	11	Production	Management committee/ Strategic planning	Map actions and outputs of all contributors to the catchment restoration project, negotiate commitments from public and private contributors	Coordinator, Facilitator
Woody Yaloak Catchment Group	120,000	7	Production	Management committee/ Strategic planning	Increase funding from private sources and reduce reliance on government funding	Coordinator, Chairperson
Bass Coast Landcare Network	136,000	10	Transitional	Management committee/ Strategic planning	Prepare Network to manage payment for ecosystem services	Coordinator, Facilitator, Member of Committee of Management

<sup>2</sup> Lake Wellington Landcare Network was an alliance of three Landcare Networks. One Network has since left this alliance, and Lake Wellington has become the Latrobe Landcare Network.

and funding opportunities, through to *information sharing*, in which member groups met periodically to talk about their activities.

For example, Yarra Ranges Landcare Network was a coalition in which local Landcare groups were beginning to get to know each other and share what they were doing (*information sharing*). By contrast, the Upper Barwon Landcare Network had a committee of management made up of community representatives from its local Landcare groups. The committee organised itself around an annual action plan (*action planning*), but wanted to develop longer-term planning. Bass Coast Landcare Network had a Board of management and had developed strategic goals and annual priority-setting (*strategic planning*).

*Social landscape* refers to the mix of production, conservation and amenity uses and users. Barr, Wilkinson, and Karunaratne (2003) distinguish between *production* landscapes, where agricultural production is landholders' principle economic activity; *rural amenity* landscapes, where hobby farms, rural residential properties and weekenders are the principal use, with landholders reliant on off-farm income; and *transitional* landscapes, where demand for amenity uses is increasing but agriculture continues as an occupation. I assumed that each of these landscapes would generate a distinctive mix of opportunities and constraints for a Landcare Network. For example, the Bass Coast Landcare Network, one and a half hours drive from Melbourne, is a *transitional* landscape, beginning to be affected by migration of urban dwellers seeking a rural and coastal lifestyle, but with strong dairy and beef production. Lismore Land Protection Group, on the volcanic plains and stony rises of the Western Districts two and a half hours from Melbourne, is dominated by cropping and livestock production, a *production* landscape.

Table 3.1 also identifies the role of those who participated in the peer groups. *Chairpersons* are elected by the management committee or Board, and often have considerable influence because they are used by Coordinators as a point of reference in day-to-day decisions. A

*Coordinator* is responsible, with the management committee, for managing the activity of the Network. A *Facilitator* is responsible for facilitating specific local groups or specific projects, at the direction of the Coordinator.

### **Facilitating inquiry into practice**

The project sponsor and participants accepted my proposal that the peer groups be a place for inquiry in action. I sought and achieved relevant diversity in participating Landcare Networks. The core research process then benefited from facilitation of the process of inquiry. In Chapters 8 and 9, I will discuss specific ways in which facilitation supported reframing; at this point I introduce the practices used to establish inquiry between participants. This discussion goes some way to satisfying the condition of process validity, which in action research provides an assurance that the findings have been arrived at in a rigorous way and through relationships in which participants engage as equals in the inquiry process (Herr and Anderson, 2005). Action research outcomes are judged well-grounded when:

... the focus of the inquiry, both in its parts and as a whole, is taken through as many cycles as possible by as many group members as possible, with as much individual diversity as possible and collective unity of approach as possible (Heron, 1996: 131).

I used three types of facilitation practice, summarised in Table 4.2, page 93. The first were practices applicable to any group and designed to assist a group to work on its chosen task. In the context of action research these practice can be understood as *managing the inquiry task*. Sessions began at 10.30 am with morning tea, paused for a lunch break around 1.00 pm, then continued to 3.00 pm. I began sessions by describing the purpose of the session and setting out an agenda, testing the relevance of this to my co-researchers. As we progressed to different activities, I described what role I was going to take. If I thought my co-researchers needed to take up a new task, I explained this to the group and

helped them shift to that task: for example, to shift from describing and reflecting on their personal situation to reflecting collectively on Landcare's situation.

I built relationships within the groups. The series began with individuals introducing themselves and their Network, so we understood something of each others' history and motivations. At the start of each session I created time for people to reconnect to each other, and to get a feel for the issues they were leaving behind at work and for what they wanted to bring into the session. As the group moved into discussion, I watched the balance of interaction between members, and invited in people who had said little or who had been cut off by more enthusiastic members. In discussion, I drew together themes and differences in what was being said. The focus of discussion moved continually, so from time to time I referred back to the purpose of the activity, enabling myself and the group to locate the flow of views within that purpose. I drew together understandings in the flow of discussion, and conclusions and dilemmas from different activities through the day. Each activity within the day constituted a cycle of inquiry, with implications that then shaped the next activity. Towards the end of each day, we reflected on themes and learning from all the activities and each individual spoke about the implications for their action in the next month.

A second set of practices were directed at *deepening inquiry*. I intervened in the flow of discussion between participants to ask for the thinking and context behind a person's opinions or behind the actions they had described. This sometimes meant momentarily interrupting interaction, but had the value of making it clearer just what was being contested; my intervention prompted my co-researchers to make explicit the assumptions implicit in their views and actions. I directed the attention of participants to either the description of experience ('Tell us what happened') or the analysis of experience ('So what do you make of that?'), so as to maintain a dialectic between experience and opinion.

Table 4.2 Facilitation practices used to support participatory inquiry

Managing the inquiry task	Deepening inquiry	Building inquiry skills
Make purpose and agenda explicit	Ask for the thinking and context behind opinions and actions	Provide a structure for reflection on personal experience
Negotiate process and role	Attend to experience and opinion	Invite attention to assumptions before and after action
Build relationships between members	Keep understandings and questions connected	Draw attention to inquiry skills
Draw together understandings	Challenge complaining and solution-giving	Insist on collegiality
Draw out implications	Listen to the stories	Look for similarities and differences

In setting up each activity with the day, I often framed these in terms of a question with which to engaged. As understandings developed, I connected these back to the question articulated at the beginning that activity, so that my co-researchers kept track of the meanings that were building. This had the effect of bringing question to the foreground in the discussions, and indirectly, of cultivating an interest in inquiry in a group of people who spent most of their working week making quick decisions. I also challenged behaviour, such as complaining and solution-giving, that limited inquiry. Complaining about difficulties can limit inquiry by shifting responsibility away from group members. My response was to ask for fuller expression of the feeling and thinking behind their complaint. Offering solutions in response to another's difficulty was also common, an attempt to provide support to peers, but liable to short-circuit full description of a problematic situation. To forestall this, I coached those listening to inquire rather than solve, and when solutions were offered, invited people to describe the context in which they themselves had arrived at those solutions.

The inquiry took place on a surging sea of stories. For practitioners, as Wagenaar (2005) observes, narrative functions are a form of practical judgment. Telling a story is an active process of selecting particular elements from the flow of events and inner experiences.

These are woven together on a temporal line in which events and characters have meaning as part of the larger whole. Landcare staff and community leaders used story telling fluently. Stories were never simply representations of events, but performative, shaping listeners' perceptions and legitimising the teller's actions and views. Beyond the teller's intentions, stories communicated the teller's goals and underlying values, their ideas about forces shaping their situation and their beliefs about what action would be effective. The stories came thick and fast: one story prompted related stories, forming a trajectory that sometimes forced a search for forces underlying the stories, and sometimes leapt off on tangents without critical reflection. Tellers assumed others would understand what they were getting at, since they shared common ground. My role as facilitator was to listen deeply, and draw some of what was tacit into the foreground.

A third set of practices was directed to *building inquiry skills*. Early in the sessions I observed that participants faced several difficulties in learning to inquire. They had a preference for action over reflection, and did not readily talk about *personally* difficult situations. They also had so much going on in the workplace that it was difficult to maintain inquiry when they returned to work. I decided they needed a structure that required reflection and that included them as a person in that inquiry. I introduced a four step process for analysing critical moments – moments where participants had been surprised by what had happened – as a device for focussing attention and engaging critique at depth. Drawing my own and others' work (Argyris et al., 1985; Tripp, 1993; Argyris and Schön, 1996; Garvin, 2000), I trained speakers to *scan* for a critical moment, *describe* what happened, *reflect* on that, and *plan* next steps; and listeners to listen to, inquire into and articulate a person's meaning-making. Reflection on critical moments became a regular part of the session agenda.

In the flow of any discussion in the sessions, I invited my co-researchers to use their experience to confirm or challenge their own assumptions. I opened participants' theories of action to public scrutiny *before* action, by asking for the reasoning behind what a person



was deciding to do next. Why were they settling on that course of action? Did the rationale sound convincing to others in the group? I also invited my co-researchers, as they discussed what had happened in the past month, to use the evidence of their recent experience to test past assumptions. This invitation was most effective when a participant began to be aware of gaps or dissonance in their theory of action, or struck a rising disagreement with another participant. Argyris (1982; 1990) has documented the way practitioners avoid looking for evidence that might challenge their assumptions, particularly where their competence is in question. They only override their automatic thinking routines and think deliberately when their attention is attracted to a problem, when they are strongly dissatisfied with a situation or when their existing schemata fails to account for a new phenomena (DiMaggio, 1997). I inquired into assumptions when I sensed that a person was ready to raise their own questions.

I often commented on *what* I was doing, so my co-researchers would understand my interventions as contributions to an inquiry process, and behaviour they themselves could take up to strengthen inquiry in the group. For example, when I drew together understandings from different parts of a discussion and connected these back to the initiating question or interest, I said what I was doing and why. Over the sessions, my co-researchers did indeed take up many of these behaviours, in particular the conscious avoidance of premature solution-giving and the articulation of assumptions in their own or another's thinking.

The decision to use peer groups had assumed that staff and members of management committees would learn a great deal from each other. When the sessions began, I acted as if the inquiry was collegial. As one person elaborated their situation, for example, I asked what situations other group members had been in that were similar to this one. What did they do in those situations, and why? When I noticed some members silent for extended periods, I invited them in, so we could discover whether their silence held confusion, agreement or disagreement with the conclusions being reached, or perhaps a new line of

inquiry. When one person become dominant, I invited alternate views. I did not preference my own views, nor allow others to defer to me. However, as participants began to enjoy the process of inquiry with peers, a preference for agreement over disagreement threatened to limit that inquiry. For example, when someone described a problematic situation, others often presented another situation as if it was the same.

I countered this by testing whether the several situations were in fact the same. In later sessions, participants more frequently presented differences in their experience, and my task then shifted to supporting investigation of those differences. Dick (2006) describes these inquiry tactics concisely:

Where there is agreement probe for exceptions ..... The exceptions, when found, then constitute a disagreement. Where there is disagreement probe for explanations. (Dick, 2006: 380)

The following excerpt gives a sense of the application of these principles:<sup>3</sup>

PG1/7: I think even if A\_\_\_\_\_ wasn't working there and we hadn't positioned ourselves as we have anyway within the CMA, that it would still happen in that respect because they use Landcare as a vehicle in our area to get things done on the ground.

PG1/3: But that didn't happen with T\_\_\_\_\_...

PG1/7: But that's N\_\_\_\_\_ [names locality].

RC: But how is that different?

PG1/7: If the CMA want to do things in terms of landscape scale they come straight to us first ..

PG1/6: ... because you've made sure they know that that is what you expect..

PG1/7: Oh yeah, for sure

PG1/6: .... and we in our area make sure ...

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<sup>3</sup> Quotations throughout will identify the peer group—PG1 and PG2—and participant by number, hence 'PG2/8'. 'RC' is the researcher.

PG1/3: ... and so did we, but it was to no avail. We went to M\_\_\_\_\_ at the CMA and it was discussed and agreed that it should go broader from the beginning, but it didn't make any difference.

RC: So what is the difference between those two situations?

PG1/3: Well, that's why I am questioning it. Why are we any different to Yarram?

PG1/7: Maybe our chair talking to \_\_\_\_\_ [CEO of CMA]

PG1/3: No, don't forget \_\_\_\_\_ [Chair of PG1/3's committee of management] has been the chair of everything. He would probably have more pull than anybody I'd reckon.

PG1/7: I don't know.

RC: Is it that the particular person managing it took a certain direction?

PG1/3: I'm sure. It would be the particular person.

PG1/7: So maybe I'm just wishful thinking that if it wasn't A ...

PG1/6: ....you would have had more of a fight on your hands!

PG1/3: That is what I am saying to you [PG/7], don't assume that's the case.

RC: It could have broken a different way depending on the personality?

PG1/3: Yes, quite easily.

Described in the abstract and retrospectively, interventions to deepen inquiry and build inquiry skills sound strongly cognitive, but I hasten to say that my facilitation was enacted through a cloud of things half seen and felt, in which emergent meaning was informed by feeling and imagination as much as logic.

### **Data and analysis**

Action research, in seeking to respond to the context of the research and the understandings that emerge, 'fine tunes its methods and develops its plans of action gradually as it proceeds' (Dick, 2006: 372). The methods did indeed develop as the research proceeded, and I will present those developments as I progress through the

findings. As for analysis, for my co-researchers, the results of the inquiry into their practice were applied immediately, after sessions. As a researcher seeking to understand community-based governance within the NRM regime, my inquiry began where their inquiry ended. I began transcribing the peer group sessions, eventually, forty-two hours of discussion. After each session, I coded at least some of the transcript, sufficient to raise ideas and questions to take into the next session.

A review of the West Gippsland CMA's Landcare Coordinator and Facilitator program (Brewin and Thatcher, 2008), where I was part of the research team, provided additional data on community members' view of Landcare Networks, presented as stories of *most significant change* (Davies and Dart, 2005). Reports to DSE through the three years of the Project provided data: peer group perceptions of barriers to and drivers of Landcare involvement in NRM governance; participating Networks' progress with their development tasks; analysis of the way Landcare Networks kept track of policy; four case studies of the planning activity of Landcare Networks. Project scoping documents, proposals and presentations to policy staff and notes of meetings with the Project Manager and other policy staff provided data on the governance regime.

To digest the shifting field of my activities as consultant, facilitator and researcher, I kept a journal in which I reflected on all these activities as a researcher, capturing emerging ideas about Landcare and the NRM system. Memos written while coding captured thoughts about emerging codes and the choices they presented. Maps of emerging ideas and questions, referencing when and where these appeared in journal entries and session transcripts, helped me to keep an overview of the inquiry. As much as time permitted, codes were tested, expanded and modified after each session, even if I could only deal with a part of the new transcript. When the monthly sessions with peer groups finished, I completed coding of the transcripts.

Coding is the naming of excerpts of a transcript with a descriptor that fits what is happening in the interaction. If a similar expression or interaction occurs, it is given the same descriptor or code, with the further application of the descriptor testing whether it accurately characterises what is happening. My focus as I began coding was of action in context, that is, I attempted to describe what was happening as action taken within a particular context. For example, 'reassuring' might have been the code label, but its definition was 'reassuring a colleague with problem.' This is an interpretive application of grounded theory methods (Strauss and Corbin, 1994b; Charmaz, 2006), in which begins examining the data without particular concepts in mind, and builds propositions directly from data. When full elaborated, organising concepts, properties and dimensions of phenomena may all emerge from this approach (Strauss and Corbin, 1994a). This approach fits well with action research, which seeks understandings relevant to action, by bringing rigour to the theory building in reflection on experience (Dick, 2006).

Examination of a piece of behavior or interaction in context led to a tentative code, which was then tested against existing codes, and their substantiating data, asking the question 'Is *this* what is happening here?' In the absence of an immediate 'yes,' comparison between the new data and existing codes was used to sharpen both the new and established codes. Each session was approached as an independent dataset, with comparison between sessions used to challenge existing codes. When viewed through the prism of a new interaction, previous codes and their data could be tested. How adequate was the previous code in capturing what was happening? Were other things happening in participants' interactions that had not previously been noticed? This is the 'constant comparative method' of Glaser and Strauss (1967), in which movement between data and codes tests emerging concepts. Once a first set of codes emerged, I entered a middle period of consolidation and differentiation where the definitions of each code functioned as a rough rule for deciding how to apply the code. Mindful of Argyris' (1985) advice to

concentrate on the level of abstraction at which people in everyday life reflect on their actions, these definitions expressed participants' concepts.

Codes that were similar in terms of their context or intent were grouped, eventually settling into four aspects of Networks' functioning with the NRM system:

- facilitating community action
- brokering between community and government
- governing at landscape level
- influencing planners and policy makers.

A fifth group of codes — 'learning with peers' — captured participants' interactions within the peer groups. Codes within each category were consolidated to those most strongly supported in the data. Consolidation presented choices as to whether related codes captured different or the same phenomena. For example, at one point 'brokering between community and government,' included 'working through networks' and 'developing collaborative structures and relationships'. Were these really the same thing? Looking at the passages in the transcripts to which these codes referred showed that staff used social networks to connect to key people in industry and government, to source information, test ideas, or identify opportunities. But they also sought to create structures (such as forums or working groups) and partnerships with individuals and their organisations, which provided stability over time for interaction between community and government programs.

Comparison of codes also led to differentiation. For example, by the start of the second peer group I had a rough group of several codes that seemed to be about 'influencing CMAs', including one named 'developing a more complex picture of governance'. In session six of the second peer group, two group members are discussing how to win

support from a CMA Board. PG2/9 had recently encountered the Board in his role as an agricultural consultant:

PG2/9: ... It was very positive — ‘We need to work with these individual consultants, because they see so many farmers, we want to have a dialogue, because if there are issues out there, we want you to bring them back to us with these regular meetings’. I don’t think the same thing is happening for Landcare, so if you’re in the old basket, not in the new one.

PG2/1: Yes. It is a very antiquated and *unspoken* concept of Landcare. But I think the new managers will help a lot, because they will come in with a new picture.

RC: But Landcare might have to do something publicly, symbolically .....

PG2/9: .... to show the move.

Was this an instance of ‘developing a more complex picture of governance’? Yes, but it seemed as well to evidence collaboration within the peer group around increasing Landcare’s influence. Context is all. During that session, participants had been building on each others’ thinking with additional ideas, sometimes challenging others’ conclusions directly or, in this instance, more tentatively. They were developing a picture of governance, but they were also ‘peers learning how to influence’. This meant that data coded in previous sessions as ‘developing a more complex picture of governance’ now had to be reexamined. Amongst instances of ‘comparing governance arrangements’, and ‘critiquing motivations of NRM players’, were instances of ‘peers learning how to influence’, particularly in later sessions. The new code in turn revealed a difference between opinions delivered with and without attention to the learning of their colleagues. This marked the beginning of the concept of *taking responsibility* presented in Chapter 8, *Doubt and the dynamics of reframing*.

As Charmaz (2006) suggests, where emerging codes were poorly substantiated or elaborated, I paid attention in subsequent sessions to possible properties and dimensions of these concepts. I could not intervene with questions extraneous to a group’s discussion,

but there were many matters implicit in the discussions about which I could ask clarifying questions. For example, I had repeated opportunities to test the codes dealing with the difference between government programs and Landcare Networks. The commitment to inquiry within the peer groups meant that I could legitimately move attention from the presenting surface of a situation to associated practices, assumptions and consequences. For example, I could ask participants to say more about *how* something like the setting of regional priorities operated as a constraint on Landcare Networks.

In developing the findings, the codes and their underlying material were used to confirm and elaborate further the critique of governance regime developed by peer groups. Where Project reports had enumerated lists of barriers and opportunities in the governance system, this analysis searched out my co-researchers' perception of the relationships between these factors, leading to the layered critique presented in Chapter 5, *Landcare Networks' critique of NRM governance*. The question of *why* participants saw NRM governance in the way they did required a longer and more difficult analysis. The practice of Landcare Networks was taken as the lens through which participants constructed their critique of the governance regime. This practice was sometimes tacit in discussion in the peer group, but often quite explicit. For example, discussion of the way regional priorities restricted the ability of Networks to support community priorities often went hand-in-hand with restatement of the importance of supporting landholders' priorities, and stories of how Landcare Networks supported those priorities.

In instances where assumptions underpinning practice remained tacit, I interpreted the assumptions. I considered the way participants spoke about a situation, in the context of flow of discussion in a session and across sessions. For example, uncertainty or change in funding criteria made it difficult for Landcare Networks to follow up demonstration or educational work with further education, trial and incentives for implementation. It was seen as a constraint *because of* the need to support the small steps by landholders that would build progressively stronger commitment to change in land management practices.



The impact of small steps on longer-term commitment may not have been mentioned in the same breath as the uncertainty of funding, but was present in other parts of the discussion.

The question of *what* changed in my co-researchers' perceptions of themselves in the governance regime required a further round of analysis. Using theories of action as an analytic tool, I interrogated codes developed under the categories 'influencing planners and policy makers' and 'governing at landscape level', looking for patterns across sessions. My interpretation of what *enabled* those changes used codes from the category 'learning with peers', which captured interaction in the peer groups through the sessions. 'Complaining' was one such code; 'challenging other's views' another. I had developed tentative ideas about what enabled change while facilitating: reviewing the coding allowed me to track the sequence of inquiry and theorise the enablers of changes. Those propositions, presented in Chapter 8 *Doubt and the dynamics of reframing*, are very much my own. No-one in the peer groups said, for example: 'Doubt is leading me to question the frame in which I am operating'. Participants questioned the partnership with government and, after a period of complaining, began to look for limitations in their view of their action in NRM.

Interpretation required simultaneously entering the thinking, feeling and interacting in the transcripts and in my memory. I moved *inside* the way Landcare Networks saw the world and themselves in it. In the interactions in the peer groups, then, as I coded these interactions, my question was: What are people doing here, in their actions and in the meanings they are making? What understandings about their situation, what goals and what assumptions about action shape their interaction at each moment? Simultaneously, I stood one at one remove from any particular moment, outside it, to better appreciate that moment in the context of a discussion between practitioners. I have also asked why particular meanings and actions have persisted and what this means for understandings of environmental governance. Why, for instance, do Landcare Networks *continue* to be

unappreciated by regional and policy levels? What are the processes that lead to their staying in this position? How has the goal of community action been embodied in the practices of staff and management of Landcare Networks?

This has meant a search not for definitive causes, but for adequate description. It led to a view that was not quite from the outside but *beside*, close but somewhat removed from the intensity of immediate expression and interaction. My interpretation was informed by my participation in the peer group discussion but intent on understanding my co-researchers' experience and views as an instance of environmental governance. The merits of such interpretations must be judged by the standards of truth relevant to the research methods. These standards are, like the research design itself, emergent.

### **Assuring the trustworthiness of the findings**

Positivist researchers use the concept of validity to assess the merits of findings.

Qualitative researchers have developed the criteria of trustworthiness: the demonstration that interpretations of data are credible (Lincoln and Guba, 1985). With its interest in change, participatory action research adds the criteria of outcome validity (Herr and Anderson, 2005): has the research changed the situation of participants? It adds as well a criteria of process validity, the extent to which findings are based on 'reflective cycles that include the ongoing problematisation of the practices under study' (Herr and Anderson, 2005: 55), enabling participants to take responsibility for their own inquiry.

In relation to outcome validity, the findings in Chapter 8 establish that my co-researchers changed the way they thought about their situation, began to change the way they acted within it, and were yet to see a significant change in the influence of Landcare Networks in NRM governance. In relation to process validity, I have presented the facilitation processes used to cultivate inquiry, and now discuss how I managed power in the relationships between myself and my co-researchers. I then turn to the criteria of

trustworthiness, describing the provisions made for assuring the credibility, transferability, dependability and confirmability of findings.

#### Managing power

Herr and Anderson (2005) propose that an action researcher can operate from one of five positions: 1) an insider studying their own practice; 2) an insider in collaboration with other insiders; 3) insiders in collaboration with outsiders; 4) collaboration by a team of insiders and outsiders; 5) an outsider collaborating with an insider; or 6) an outsider researching insiders. As facilitator of the peer groups, I was an outsider engaged by the Landcare Unit to collaborate with insiders. I negotiated the research agenda and methods with the DSE Project Manager and Landcare Network participants as an outsider.

However, in other respects, I had a measure of insider status. Ten years of consulting in NRM gave me inside knowledge. Limited communication between Landcare Networks and the Landcare Unit meant that I became something of an insider for Landcare Networks, who imagined me inside the world of policy, and for policy staff, who after a time imagined me inside the world of Landcare Networks. My affiliations to those very different levels, however, might well have raised questions about the extent of my commitment to either of them.

Dick (1999) observes that participative forms of action research are likely to be seen as trustworthy and credible by participants, simply because they have had a hand in their outputs. However, the project brought into play institutional histories that could have undermined that trust. I was contracted and paid by DSE to recommend how to develop Landcare Network capacity, in a governance system where the views and preferences of community organisations often had little influence. I was paid to write reports to DSE and my co-researchers were not paid to do this. I analysed participants' views and behaviour from the viewpoint of disciplines and concepts largely unknown to them.

These dynamics also gave significant power to participants. They were sensitive to whether the research was another instance of community Landcare losing its authority to shape its own agenda. Their active and willing participation was necessary to set up and run the peer groups and they withheld this participation until they were sure they could set the agenda. Their opinion of my value as a facilitator for their inquiry influenced the credibility of the research for policy sponsors and other Networks' willingness to join later peer groups.

Two strategies were used to manage the risk that my influence would overwhelm that of participants. The first was to *differentiate the different purposes at work in the research*. Figure 4.3 (page 187) shows how the purposes of related enterprises were characterised.

Individual participants had accountabilities to their Landcare Network committees of management, which supported action by communities. The purpose of the peer groups was to support each Landcare Network to become more effective and influential, and that linked to the Readiness Project aim of preparing Landcare Networks for a stronger role in NRM governance. The doctoral research was presented as an inquiry into environmental governance, which would draw understandings from all Readiness Project activity.

Differentiating the purposes allowed those associated with each of the enterprises to organise activity and assess progress against their own criteria, while understanding that other actors might have different criteria. For instance, the purpose of preparing Landcare Networks for a stronger role in governance legitimated the use of the work of the peer groups by the Project sponsors. My interest in contributing to the field of environmental governance provided a rationale to peer groups and Project sponsors for my use of the Readiness Project material in the doctoral research.

The second strategy was *to broadcast everything*. The critique of Boxelaar et al. (2006) is that attempts to develop new approaches to sustainable land management practices often propose collaboration, but in the end put tangible outputs ahead of less tangible

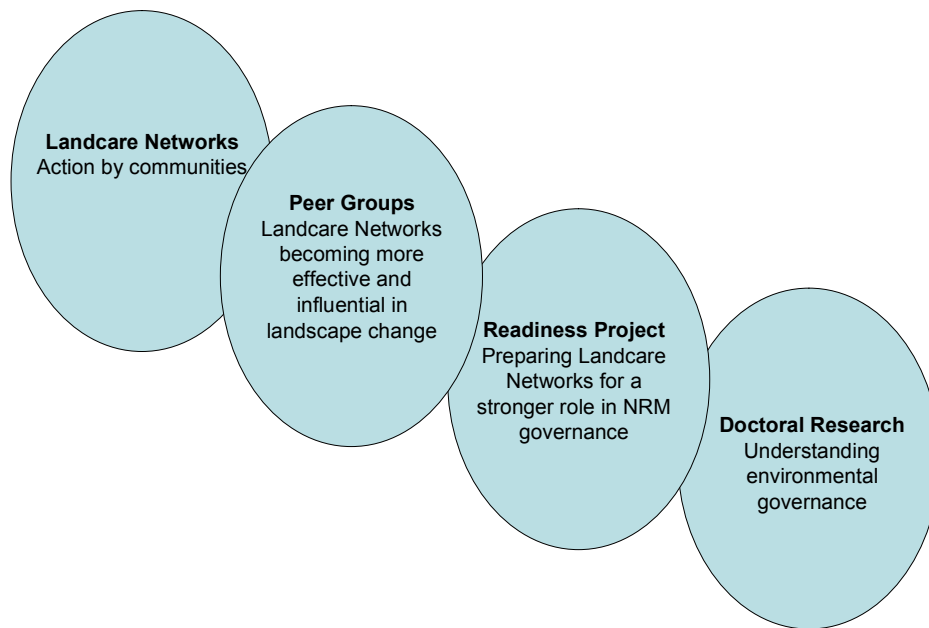


Figure 4.3 Purposes of different entities in the inquiry

outcomes, and insiders ahead of those who are outsiders to agency business. This undermines difference and divergence, and reduces innovation (Boxelaar et al., 2006). To avoid this narrowing, I made the Project's assumptions about change explicit and distributed Project reports and ideas in progress to all those with an interest across the four enterprises above. My status as an outsider made this easier than if I had been bound by accountability within the normal line of management within DSE.

Broadcasting everything meant participants, their sponsoring Networks and research sponsors could keep an eye on what was happening and protect their interests. It opened the inquiry to divergent views, including objections from influential players. It also opened a wider community of practice across participating Landcare Networks and other Networks where staff or community leaders were interested in what we were doing.

Credibility, transferability, dependability and confirmability

The positivist tradition has approached theory as a statement of relationships that seeks explanation and prediction and is applicable to a wide range of situations. As interpretive approaches, grounded theory and action research seek understanding of how people

construct and act on their view of reality in a specific context. These approaches are less interested in developing explanations that can be applied to other contexts (Charmaz, 2006). Research in naturalistic settings seeks to describe how people view their circumstances and actions, and this fits part of the intent of the current research. Lincoln and Guba (1985) have proposed four elements that contribute to the trustworthiness of such findings: credibility; transferability; dependability and confirmability.

In relation to *credibility*, the demand is that results are believable or credible to participants. Findings were developed in the first instance with participants in the peer groups, and checked by them at three levels. During peer group discussion, participants could and did challenge my summaries and interpretations. Emails between sessions, in which I gave a point of view on issues arising in sessions, gave participants an indication of how I was interpreting their views and in subsequent sessions, an opportunity to challenge my interpretation. Finally, project reports went to participants in draft form for their feedback. The findings in Chapters 6-9, developed after the peer groups finished, were tested through comments on drafts and discussions with those who had participated on the peer groups.

Several other elements brought rigour to the findings. In the analysis of transcripts and documents, triangulation of sources was achieved by treating each peer group and each session as a different dataset. Diversity in the level of organisation of participating Networks and their social landscape brought relevant differences into the peer groups. Conclusions from each session were tested in action by participants, and previous analyses reworked in the next session. Over twelve months, theories of action were made explicit. Emerging findings were also tested in discussion outside the research cohort, with other participants in Victorian NRM and in work with Landcare organisations in New South Wales, the state immediately to the north of Victoria. A peer group of consultant colleagues, with whom I had been meeting regularly for fifteen years, functioned as critical friends (Herr and Anderson, 2005). Discussion with my doctoral

supervisors clarified the theory that was emerging and raised alternate theoretical perspectives.

*Transferability* refers to the extent to which the findings can be applied to other settings.

Given that settings are different, the researcher's first responsibility is to be clear about the research context and the assumptions made in the research methods, which has been the intent of these first four chapters. The research used two other mechanisms for testing transferability. Presentation of the findings to Landcare Networks other than those in the peer groups provided feedback as to what aspects of the findings seem accurate and relevant to them. The research findings were also used as the basis for a third year of work with Landcare Networks, specifically, a third peer group and three conferences on critical issues for Landcare Networks across Victoria. Research findings on Landcare Networks' marginalised place in the NRM governance, its distinctive discourse and emerging theories of action and frames were used as the starting point for designing events within which community Landcare members and staff could examine and reinvent Landcare's place in NRM.

The quantitative researcher's view of reliability has been that the same results should be obtained if an experiment were repeated. In the context of qualitative research, that demand is replaced by the idea of *dependability*: that the researcher can show how the changing context affected the research design. Dependability was addressed first in broadcasting of the Project's design as this changed prior to and during the two years of the thesis research. This made explicit the link between the intentions of sponsors, the design, and the changing circumstances to which the design responded. Accountability to the project sponsors in DSE meant that this was formally renegotiated annually. For the purposes of thesis research, development of the research questions through three cycles of inquiry have been described.

The need for a link between results and evidence gives rise to the criterion of *confirmability*. Would another researcher reach the same conclusions from the same data? A check on confirmability is provided by an audit trail that connects propositions in the findings to coding categories and the codes that make them up, and eventually to transcripts of peer group discussion, project reports and policy documents. I have run up and down this trail throughout analysis and documentation of the findings, but I have not had a researcher outside the inquiry assess these links. The trail is on solid ground from data to coding of transcripts, but in locating those findings within governance theory, I take a leap from the world of practice to that of research. For now, it is time to enter the practice of Landcare Networks and the way they see themselves in the NRM governance regime.



## **Chapter 5 Landcare Network analysis of NRM governance**

How do Landcare Networks understand their influence in NRM governance? This chapter presents an analysis developed with staff and community leaders of the nine Landcare Networks participating in the two peer groups of the core action research, as they pursued their primary purpose of making their organisations more effective and influential. Chapters 6 and 7 then identify the network governance practice underpinning this analysis.

### **The peer groups as a setting for critique of NRM governance**

As soon as discussion started in the peer groups, it became clear that participants believed that Landcare was marginalised in the NRM system. Regional and policy levels, they thought, were preoccupied with achieving the biophysical targets of governments, to the exclusion of change initiated by communities. CMAs were too ready to impose programs and projects without collaboration, and staff of government programs did not seem to value of broad-based community action, either as an influence on landholder practices or in organising action to repair landscapes.

Each peer group developed two agendas. One focused on the immediate development goals chosen by participants and authorised by their management committees. The other focused on understanding Landcare's position in the NRM system. It was around this agenda that the critique formed. The primary driver for inquiry was participants' desire to increase their influence in the NRM system. The requirement for the Readiness Project to report participants' perceptions of barriers and opportunities in the governance system provided an incentive to be thorough in this inquiry, and the action research framework provided a process of inquiry grounded in the interests and perceptions of the peer groups. We embarked as co-researchers, examining the place of Landcare Networks in NRM.

Individuals brought specific interests, beliefs and values; I do not attempt to analyse their differences, but their areas of strong commonality. Each brought perceptions based on the differing circumstances of their Landcare Network, and this diversity enriched their joint inquiry. The development tasks of participating Landcare Networks (see Table 3.1, page 75) had three themes: building the base of collaboration between local groups, becoming more strategic, and becoming more independent. Three Networks were looking for ways to *build the base* of collaboration between local groups. Coordinators in two of these were developing connections between local groups, opening ways for community members to work together at a landscape level. In the other, the Chairperson and the Facilitator were rebuilding a Network where activities and participation by members had been in decline for several years. They were looking to re-engage around landholders' interests, bringing new blood into the Network management committee. Alert to the possibilities of funding new Network initiatives that would build connections between local groups, all three were sensitised to the attitudes of CMAs and funders to community-initiated projects.

Four Networks had strong local groups, workable governance between local groups and a track record of delivering effective project management. Their committees of management wanted to *be more strategic*. They wanted planning that could take them beyond project management and set longer-term direction for their Networks. One wanted to negotiate with several distinct agency programs to build shared goals in two river catchments and to win commitments from all parties contributing to the health of waterways. One, a larger local group that functioned as administrator for smaller groups, wanted more clarity on long-term direction and governance arrangements between all the groups. Another was in the process of having local groups set three year goals and setting Network priorities in the light of (though not directed by) those local goals. The fourth wanted a strategic plan that would respond to the differing interests of hobby farmers and full-time farmers. Participants from these Networks were attuned to changes within their local groups and the local communities in which those groups operated, and changes in

NRM planning processes and funding priorities at regional level that would affect their ability to mount projects. They were each reasonably successful in winning funding, but could sense that they needed to be better organised in their planning and better informed about trends in NRM funding.

Two Networks had strong local groups, well-established governance arrangements at Network level, a track record of managing project delivery *and* a strategic view. Their management committees and staff had ambitions beyond what the regional planning system was ready to support. They expressed their aim as *becoming less dependent on government*. They were well-informed about the shift to targeted investment and knew that it would limit the projects the Network could sponsor. Each already had some funding from corporations operating in their area and wanted to diversify funding sources. They wanted to win the trust of philanthropic trusts, sell ecosystem services to government, enter carbon markets as a broker, and go direct to agencies and research bodies that wanted on-ground services. Their members had a good track record of action on environmental issues, and the Network management committee saw its role as finding ways to support that action, whatever the current fashion in NRM funding. Where other Networks met a limitation in government programs with 'What can you do?' these Networks asked themselves 'Okay, what *can* we do?' They were active in pressing their case with funders when their projects did not fit government criteria, but they were also looking beyond government. In the peer groups, the staff and management of these two Networks were more likely to couch their critique in terms of long-term trends in NRM policy.

The presence of these three distinct interests enabled my co-researchers to test their differing views against each other and build a more comprehensive view of the governance regime than any could have alone. Their emerging analysis was tested in several ways. Any particular claim about a significant barrier usually provoked further evidence both for and against that claim, and the assertion of alternate influences in the

situation. My role as facilitator here was to draw together conclusions from this discussion, and to set out the differing perceptions. Secondly, when there was unanimity in opinions, my role as a researcher was to test the consensus. Was this *always* the case? Might there be other interpretations of events? Thirdly, where differences of opinion arose, I encouraged people to explain the differences. Had differing experiences led them to differing opinions? Or did their values lead them to weight the importance of factors differently?

The fourth significant influence on the critique was action between each session. Often, situations previously discussed turned out in the interval between sessions to be more complex. Previous analysis had to be reworked. New situations arose and were brought forward for analysis, confirming conclusions already arrived at, or challenging these. As action generated new possibilities, my role was to continue to draw together similarities and differences in experience and perceptions, testing consensus and difference alike. The resulting analysis makes the following claims:

- CMAs do not collaborate with Landcare Networks
- NRM planning is organised around government and biophysical priorities, not community action
- CMAs view Landcare Networks as implementers of CMA decisions on targets and investment priorities, not as autonomous community organisations facilitating change within communities
- staff of government programs assume their programs drive change
- Landcare Networks have not asserted their interests.

That they agreed on all these propositions despite their different circumstances strengthens the possibility that their conclusions would be reached by other Landcare

Networks. The analysis (Figure 5.1 below) is layered and follows the course of inquiry in the peer groups. It is the analysis of my co-researchers, couched in their ways of speaking, illuminated with excerpts representative of views in the peer groups. The organisation into three layers is my construction made retrospectively, congruent with the record of the analysis in the transcripts,. In any ten minutes of discussion of a specific situation, my co-researchers might travel through all three layers or only probe down one layer. But as successive situations were raised and agreement on a layer established, the weight of inquiry shifted to inquiring into why collaboration had failed.

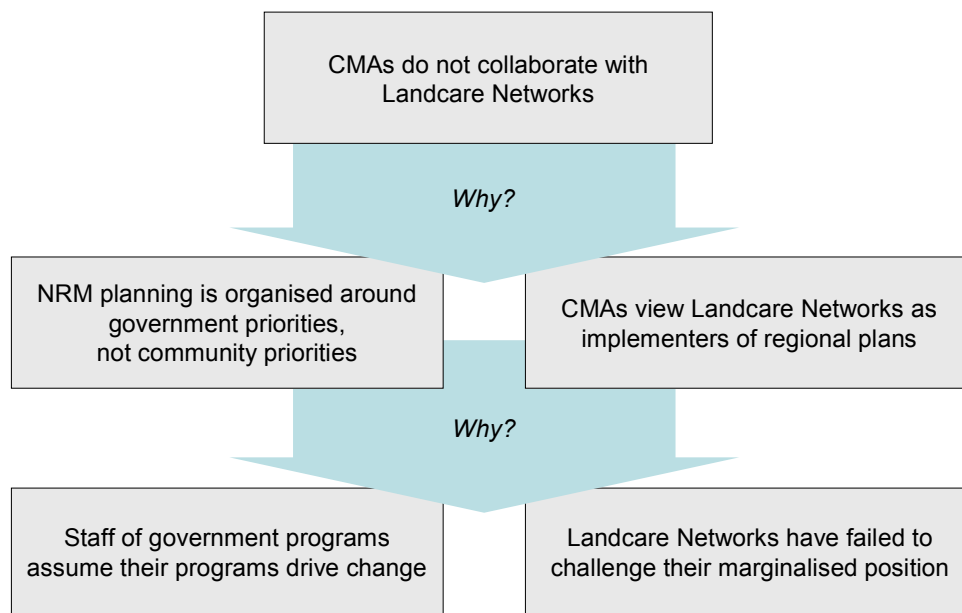


Figure 5.1 Peer group critique of the NRM governance regime

Briefly, the analysis begins with the observation that CMAs do not collaborate with Landcare Networks. This begged the question as to *why* CMAs did not collaborate. Two explanations emerged. The first was that the focus of CMA activity had shifted to government priorities and biophysical priorities at the expense of projects initiated by community and activity that built community capacity. The second was that CMAs had come to view Landcare Networks primarily as implementers of regional plans, rather than

as planners in their own right. This perception of Landcare Networks meant that CMAs did not seek collaboration in priority-setting and project design.

In other settings, my co-researchers might at this point have shrugged their shoulders and given up; their shared commitment in the peer group to becoming more influential led my co-researchers to continue their inquiry. They concluded that staff in government programs seemed to assume that government programs initiated change, not communities. They also accepted that while some Landcare Networks had asserted their interests, Landcare Networks as a whole had not challenged the assumptions of government planning and programs. They had not asserted their approach to change in landscapes as a legitimate and necessary part of the governance regime. The evidence behind these five claims is now presented.

### **CMAs do not collaborate with Landcare Networks**

The critique here identifies three ways CMAs failed to collaborate: they paid more attention to government funders than to the interests of communities, they did not consult with communities to set CMA priorities, and they worked directly with landholders.

*Catchment Management Authorities orient more to government funders than to communities.*

Landcare Network management committees and staff had expected that devolution of target-setting and investment allocation to CMAs would mean participatory decision-making with local communities and with Landcare Networks. They anticipated that local knowledge, community priorities and the capacity of Landcare Networks to organise action would be integrated with regional decision-making. Almost the opposite has happened. Regional bodies were formed to:

PG2/13: ... feed back into policy makers what's happening at a local level, and they haven't been doing that I don't think. It's actually the other way round—policy makers have been telling them what to do and how to do it, that is transferred to the local groups and the local networks ...

Preoccupation with management of funds and reporting of outputs overwhelms the possibility of shared attention to what communities are doing and wanting to do:

PG2/8: So, on one hand here is us with 'Here are our priorities, let's do it', and on the other the CMA saying, 'Oh, can you fill in....'

PG2/15: No, [they say] 'You *have* to do this...'

PG2/8: .... the major collision course is that we have a plan, and they have a whole lot of things such as kilometres of fencing, poison baits in the ground or whatever it happens to be ..... at the moment, there isn't too much of a mismatch, but we can see the collision course, because it (the CMA) is assuming that we don't have any priorities, that we have got to jump to their tune or dance to their tune.

*CMAs engage communities after decisions are made about priorities.* Regional Catchment Strategies, developed every five years, provide broad direction to CMAs. These are operationalised in strategies for specific assets such as biodiversity and river health, and in annual Regional Investment Plans, open to public expressions of interest. Consultation on asset-specific strategies and Investment Plans is brief, often hastily organised without discussion with Landcare Networks, but with the expectation that Network staff will ensure community members show up to meetings. CMAs engage communities:

PG1/5: ... at the *end* of the process, because they need them to do the work!

Invitations to Landcare Networks to respond to Regional Investment Plans with project proposals is limited by CMAs to specific items and specific Landcare Networks, rather than being thrown open to Networks.

*CMAs are beginning to work directly with individual landholders, rather than through local Landcare groups and Networks.* This undermines local groups and Networks, especially when other funding sources once channelled through these organisations have also been reduced:

PG2/10: CMA partnership projects are purely focused one-to-one, on waterways. So straight away that was undermining Landcare, it was undermining the purpose of getting together. .... we come out to the groups and we've got no budget .... so what is it that we can actually offer? And after a while, why would people turn up? Why would they want to get involved?

### **NRM planning is organised around government priorities, not community action**

Why had the previous collaboration between CMAs and Landcare Networks changed?

The peer groups identified first that NRM planning was now organised around government priorities, rather than community priorities. Several observations backed this claim: community priorities were only supported when these fitted those set by CMAs, technical assessment had more influence in decision-making than local knowledge, and funding programs were pursued without consideration of how these affected community groups.

*Public investment only supports community priorities where these fit government priorities.*

From my co-researchers' perspective, the priorities of landholders are too frequently set to one side because these do not fit the priorities of government programs:

PG2/9: What farmers want, what they want to do, is being left out of the equation.

Landcare Networks in areas with regional priorities are much more likely to have projects funded, but these will have to fit the specifics of regional priorities. Networks in areas with fewer or no regional priorities will not have their projects funded. For example, when the regional priority in an area is waterways, landholders close to waterways get attention and incentives, but not others:

PG2/11: .... when you get to an area like ours, which is a very large broadacre area, we're more into bio-links and stuff like that, plantations and the odd wetland and a bit of remnant..... we don't fit the criteria!



*Investment decisions are based on technical assessment of biophysical assets and threats, not local knowledge.* Priorities are based on assessment by technical staff at regional level as to the level of threat to each class of asset, and on assessment of the most important assets by regional, state and – for some threatened species – national level technical staff.

Information is drawn from data developed and held at regional, state and national level, and interpreted through assessment frameworks developed within government agencies. For example, assessment of biodiversity condition is based on state-level data using a classification system developed by DSE policy staff.

Program and project design is strongly influenced by what technical staff within a CMA think will deliver most benefit. Despite the lack of evidence connecting alternative actions to outcomes (Pannell, 2008), technical staff do not seek locally specific information on the merits of alternate actions for achieving resource condition outcomes, even for projects aiming to change local landholder behaviour. Local knowledge is not used when assessing asset condition or threats to assets, even though those assessments – in the case of biodiversity condition – use statewide GIS data that often miss the complexity of vegetation communities on the ground; or in the case of soil health and groundwater, old data with significant gaps in coverage. Landcare Networks also have limited access to the technical data used by government programs bidding for delivery of projects, which puts them at a disadvantage when competing for delivery of projects against specialist branches of the CMA or other government programs.

Planning is designed around individual assets (waterways, biodiversity, land), not functioning landscapes. Planning is conducted separately for each asset, and delivery of projects maintains this separation:

PG1/1: ..... they put in these regional bodies across Australia, so this wasn't meant to be a silo approach, but we still have the waterways branch, the community branch, the biodiversity branch. There is no integration. They might have a

catchment strategy, but from what I've seen, they are still operating in silos: 'These are our waterways targets, these are our veg [vegetation] targets.'

As a consequence, Landcare Network staff not infrequently find themselves handling requests for access to landholders from staff of differing government programs who are unaware that their colleagues are working in the same district; or handling startled or bemused landholders beleaguered by several government programs.

*Funding programs do not consider the impact on community groups of the way they do business.* Funding programs work to short funding cycles that damage continuity of effort in communities, operate in isolation from other funders even when their funding has complementary effects on the ground, and often construct their funding criteria in ignorance of institutional changes and policy directions being pursued at other levels of government. Funding programs communicate their expectations but don't listen to what groups using their funds have to say about the criteria, and change criteria and reporting requirements without consultation – requiring community groups to change familiar formats for project bids or reports, for no substantial impact on the work funded on the ground.

### **CMA's view Landcare Networks as implementers of regional plans**

The focus on government priorities at the expense of community priorities for action leads CMA's to view Landcare Networks primarily as potential implementers of priorities set at regional level, rather than community organisations with their own plans. Landcare Network staff find themselves cast by CMA staff as well-meaning but ill-informed advocates for parochial interests, unable to grasp policy or regional priorities.

*CMA's use Landcare Networks to deliver regional priorities.* Failure to engage communities in making decisions goes hand-in-hand with failure to engage with Landcare Networks as organisations that know local communities. CMA's....

PG1/3: .... Are just not paying enough attention to the kind of governance we are capable of.

CMA staff focus on what they want Landcare to do, not what Landcare staff or members think:

PG2/10: As Landcare facilitators, it is pretty much one-way direction as far as information goes. So the information is coming down through us [CMA-based facilitators] through the CMA, the CMA's version, and it is really not to go back up. There's no information delivered back. There's no listening to what Landcare says.

Participants' response to this, after their anger subsides, is disappointment and gnawing frustration:

PG1/1: What is the point in Landcare Networks being a partner in landscape change if the other partners aren't there yet?

*CMAs and Landcare Networks do not design action together.* The assessment of three of the four CMAs in which peer group participants operated was that CMAs only talk with Landcare Networks when they want them to service CMA needs. In a fourth CMA, while biophysical priorities dominated CMA plans, a quarterly forum between CMA management and Chairpersons of the region's Landcare Networks had been used to inform Networks of CAM directions and to work out how the CMA could support Landcare Networks:

PG1/7: We operate together, it is mutually beneficial.

However, in none of the four CMA regions was there a mechanism for co-management, that is for equal power in decision-making. In the CMA just referred to, there was a collaborative process for identifying projects for the next year's investment plan, but discussion between other CMAs and Landcare Networks largely focused on administration of decisions made by CMAs, rather than negotiation of goals, priorities and programs.

The process for developing investment bids in late 2007 in one region seemed to one peer group to embody NRM planning at its worst. State funders had asked for multiple-outcome projects at landscape level, but made this demand without preliminary consultation or design with CMAs as to how it might be done. Pressed by DSE managers to meet the new requirements, the CMA gave Landcare Networks a week to prepare for meetings on investment priorities. Existing regional strategies based on previous consultation were not used to generate the draft list of priorities. Some interests (wetlands, biodiversity) were given priority by CMA technical staff at the expense of others (soil health, sustainable agriculture) without explanation. Justification for the priorities struck Landcare Network staff as inadequate and contradicted by priorities already documented in CMA strategies. The CMA refused to countenance Networks' calls for attention to agricultural issues. However, when DSE managers made it clear that they expected sustainable agricultural systems to be 20–25% of total project value, CMA investment priorities promptly included projects targeting this.

### **Staff of government programs assume their programs drive change**

NRM planning is organised around government priorities, and Landcare Networks are seen as implementers of these plans, but the question can be asked again: why does this keep happening? The peer groups agreed first that the assumptions held by staff of government programs kept Landcare Networks at a distance, and the reporting required of Landcare Networks did not do justice to what Networks were actually achieving within communities.

*Government program and policy staff do not engage with the community as a significant force in landscape change.* In searching to understand Landcare's marginalised position, peer groups returned again and again to a failure of regional and policy staff to understand Landcare. Stories of neglect or active constraint by technical staff, management and policy staff often precipitated other accounts, and deep exasperation:

PG2/9: They simply don't get it! They don't understand the importance of engagement, of getting the community on the same page. All the words are there but they mean nothing!

In not seeking community or Landcare participation when making decisions affecting landscapes, my co-researchers saw evidence that higher levels do not regard the community as a significant initiator of change. Consultation with community groups:

PG2/1 ....is seen as a box-ticking exercise .....there is very little respect extended to what the people involved are actually doing and the role that they are playing. They should be the main thing, the point of it all!

Community is 'this thing that hangs off the side' of government plans for the landscape:

PG1/4: Instead of writing a policy about what landscape change is, go into a landscape and say 'Who are the stakeholders in this landscape?' Not 'What are our targets? We need so much work on salinity, we need this many trees, we need this many rabbits killed' and all this sort of stuff. Go into a landscape and say 'Who are the people in this landscape, who are the major stakeholders in this landscape?'

PG1/2: But you need to do both at once....

PG1/4: You do, but they're not doing both at once, they're looking at the bio-physical dilemmas in the landscape, and then thinking that the community is just this thing that hangs off the side of the landscape.

PG1/2: Don't you think they understand that?

PG1/4: They don't! They don't!

PG1/6: They don't understand how we are operating .

PG1/1: They don't think about what social assets are there, they don't.

My co-researchers explained the lack of engagement with community interests in terms of lack of belief on the part of staff of government programs in the capacity of local community organisations to initiate and manage change. In a similar way, observing the focus of CMA staff on their own programs and policies and the exclusion of the priorities

and knowledge of Landcare Networks, they infer a belief on the part of staff that government programs and policy drive change in the landscape. Without the technical understandings, planning and funding of government programs not much would change. My co-researchers trace this belief to the wider policies of government and the culture in government agencies:

PG2/12: .... we can't just blame the CMAs. They are dictated to by state government in all this red tape that's being brought in. That's not coming from the CMAs, that's the state government, that red tape, which may be the death knell for some of our producers in the end. But they need to understand that we are just looking after landholders although we might come and criticise them and say this has got to change. We then want them to go and talk to landholders.

RC: Do they respect that commitment you have to your landholders?

PG2/12: They don't want to rock the boat. They don't get paid extra for rocking the boat. They want their super and.....

PG2/9: Philosophically different Ross .....

RC: You can represent different interests, but still respect the other and negotiate areas of agreement....

PG2/9: Which is what we've got in our partnership agreement with them. .... but when you actually get down to the process of people doing it, they just find that difficult, because it's a change in what they are doing at the moment.

RC: You mean the default is the government management system?

PG2/9: That's right, and that way they are comfortable doing things. Just look at some of the waterways staff in the CMA at the moment. They have identified areas affected by salt, so this reach here and this reach here are priorities, so they want to go directly to those reaches and work on it, and once that is solved, move on to the next one. Our response is, if you do it like that, you're going to exclude someone, and when it comes time for their turn, they won't want to be involved. So it's a different way of managing the people, and managing the responsiveness to them.

The peer groups contrasted what they assume to be the assumptions of program and policy staff with their own assumption that those who live and work in a landscape are important drivers of change. Asked whether people at local level are interested in options for landscape change being considered at policy level, a coordinator replies:

PG1/6: Well everybody wants that, it's just that they use different language. See, I know landcare members who would do a whole lot more on their property, to improve landscape biodiversity, if they were better resourced. So they care about where the resources and money are coming from, and who is going to be telling them how to do it and, you know, the people who are making the decisions at the policy level, how much are they actually listening to people on the ground? About the logistics of managing native bush? They care about that.

Staff and management of Landcare Networks approach communities as potential drivers of landscape change. The difference between Landcare Network governance and that of government lies not in the focus on biophysical change, but in the way each approaches the community.

*Reporting requirements for Landcare projects do not measure impacts on community capacity or resource condition.* Little in the formal administration of NRM disturbs the assumption that government initiates and the community responds. Funding programs typically only require of Landcare-managed projects information on activities (numbers of meetings held, field days) and outputs (kilometres of streamside fences, number of trees planted, number of farm plans). These measures do not capture what Landcare Networks do to build community capacity to change practices and take collective action. For example, a community barbeque and entertainment night put on by one Network for its members, designed to lift the spirits of people who had suffered drought conditions for four years, is invisible in the official accounting of NRM:

PG2/9: It's probably the most critical activity we have done in the past six months—but it doesn't meet any target in our service level agreement, no standard

output etc. It isn't eligible for funding. But it is the foundation on which we are able to sustain delivery of these outputs.

Funding programs have not supported attempts by Landcare Networks to present information on impacts on community capacity. A Regional Landcare Coordinator who has developed qualitative and quantitative measures with Landcare Networks to capture changes to community capacity prepares for a new round of negotiations on funding, and anticipates the worst:

PG1/4: I'm going to get asked the same bullshit questions this year as I got asked for the last four years about why my funding doesn't have outputs: number of meetings held, number of people talked to, and all this sort of stuff. There is no capacity to report on the fact that they're supporting networks, how we contributed to landscape scale change.

### **Landcare Networks have not challenged their marginalised position**

In the peer groups, complaint about lack of engagement with community interests gradually gave way to a realisation that 'the system kind of isn't working and there needs to be a re-jig', then to discussion about why Landcare had failed to change this situation. Some remained unconvinced that this was Landcare's failure, seeing it instead as a failure of regional and higher levels to listen to and hear what was being said to them by Landcare Networks. Either way, there was agreement on the factors that made it difficult for Landcare Networks to challenge their marginalisation.

*Landcare Networks have no formal authority in NRM planning at regional, state or national level.*

Community members of CMA Boards and committees may, by coincidence, be members of Landcare groups and Networks, but there is no formal representation of Landcare organisations in CMA target-setting, priority-setting, investment allocation or program design. Community opinion is sought in the preparation of regional strategies for each asset, and for the region as a whole, but opinions about priorities in particular landscapes and local communities are aggregated in regional targets and cannot be traced back to



specific communities. Some CMAs in Victoria used sub-regional committees in their planning processes, but at the time of the Project, in the three of the regions from which participants were drawn, there was little discussion with Landcare Networks to establish targets or annual investment priorities for their parts of the region. One of the four CMAs had a process for community input that extended through the year. Community Consultative Committees, amongst their other functions, discussed ideas for new projects. These were often developed further in portfolio groups based on asset classes, then integrated and prioritised in a annual workshop involving CMA staff, agency stakeholders and the CCC members. Those priorities then formed part of CMA negotiation to find a fit between the priorities of the region and funders. Landcare Network members and leaders were part of the Community Consultative Committees, and with Landcare staff, played a significant role in drawing together community priorities in public workshops.

Since 2002, Australian and Victorian governments have concentrated on the region as the unit of planning and investment. Apart from an in-principle requirement for community engagement, those governments have left CMAs to develop planning with communities. In the absence of inquiry by higher levels as to how adequately regional bodies engage with communities, Landcare Networks have a hard time bringing attention to their marginalisation.

*Dependence on government funding weakens Networks' focus on community priorities.* Most Landcare Networks depend on government funding for their staff and most activities. Landcare Networks 'haven't been prepared to rock the boat'. Staff and management come to limit their activity to what government will fund, losing their independent advocacy of landholder interests:

PG2/9: We've gone from being proactive in what we want to do and this is how we want to do it—and in the early days you could get a response from government to what you wanted to do! We've now come to a point where we are responding to

the opportunities we are being offered. We're not creating the opportunities, we're saying 'What's the funding, what's the priorities? What can we do?' .... you are too busy doing all this other stuff people [funders] want you to do and are going to pay you to do.

A pattern develops of relying on government programs' definition of NRM tasks:

PG2/4: Part of it is conditioning. You know, we are kind of used to being told what to do, and we complain about that, but we actually don't do much about it.

Staff and management take the money and make the most of what this can do now, rather than challenging the efficacy of funding programs:

PG1/5: There isn't any discussion about the longevity of what we're doing in the landscape. It's a little bit done here and a little bit done there. We need to promote longevity in these works: how do we nurture them into the long-term, so that in 20 or 30 years time we've got a better landscape, as opposed to degraded weed infested revegetation project.

*Challenges to CMAs can provoke threats of further marginalisation.* Some participants had challenged CMA decision-making for cursory and poorly organised consultation and poorly articulated decision criteria. They had done so with passion but without rancor, to improve decision-making. A common response on the part of CMAs was defensiveness:

PG 1/6: There was no agreed process by which projects were to be developed and when challenged on this, the CMA staff turned on us and threatened us with exclusion.

Rather than be further marginalised by their CMA, Landcare Network staff and committees of management with well developed strategic planning processes decided not to challenge CMA planning processes, but instead to work independently of the CMA and develop partnerships with other government programs willing to collaborate.

*Community members' vision for the landscape and for Landcare's role is limited.* The peer groups were made up of people with aspirations to increase Landcare's influence. But

their view was that many Landcare members 'don't want to think outside the Landcare box, of all the things they could be doing'. Local Landcare group members can be conservative, locked into the idea Landcare is only about trees and only interested in hands-on activity, while the landscape around them faces major changes:

PG2/8: ... when it comes down to the groups, there is a failure of the imagination. The groups tend to think small rather than thinking big. And in the Otways, it's no surprise that our major projects are centred around the Otway streams, and that we are on a collision course with developers who want to turn our properties into subdivisions: housing, golf courses, ridiculous things like that.

Members' lack of a vision for the landscape weakens a Network's capacity to influence priority-setting, investment allocation and program design. Committees of management are less able to take their Network beyond familiar activities. The impact of conservatism is felt more keenly in a voluntary organisation that places big demands on its position holders. How could the supply of far-sighted leaders be maintained?

PG2/11: ... have they run their race? I am worried that there is just one person on executive willing to go out and talk to people.

### **Why do Landcare Networks have little influence?**

By the above account, Landcare Networks have been marginalised in a governance system once noted for having 'one of the most often cited and interesting recent "community-based" agricultural movements and multi-stakeholder partnership in advanced economies' (Wilson, 2004: 263). The relative powerlessness of Landcare in NRM administrative systems has, however, been on record since the early 1990s, when researchers observed that funds allocated through government agencies to 'landcare' often supported agency staff that at some point in their activities (but not all the time) engaged landholders and local groups (Lockie, 1995). Landcare staff and community members made similar observations. "Too little money for "works on the ground", too much funding going into government processes not community action, too much paperwork,

too little long-term funding and too little coordination between government departments’ said the National Landcare Facilitator in 1995 (quoted in Ewing, 1996: 261). Ewing’s community Landcare respondents addressed the inequalities in power, which lay, they said, with ‘the ones with the pens’, who, while they might consult, were likely to ‘take it back in there and do what they like’ (quoted in Ewing, 1996: 265).

The peer groups’ critique of the failure of collaboration between Landcare Networks and CMAs is congruent with the perspective of other participants in NRM governance and the assessment of many researchers. Chairpersons of regional bodies observed that regional bodies ‘had a difficult task in keeping community groups engaged in the development of plans and investment strategies’ (Regional Implementation Working Group, 2005: 4).

Farmers in three regions (in Queensland, Western Australia and Victoria) believed the regional delivery model had extended bureaucracy downwards and disempowered prior structures for community-based NRM (Marshall, 2009). Landcare members in Central Victoria, West Gippsland and Tasmania described ‘loss, confusion and frustration’ over new regional arrangements (Compton et al., 2009: 156), with the researchers characterising regional planning processes as ‘consultation without engagement’ (Compton et al., 2009: 151).

Assessment by Australian NRM facilitators of government consultation in NRM echoes that of the peer groups: lack of a whole-of-government approach; outputs and outcomes from facilitation not being relayed back to participants; overloading of key community informants; failure to differentiate between consultation and decision-making; failure to take action on opinions developed in consultation (Rixon et al., 2007). A review of the regional delivery model commissioned by the Australian Government found that the demands imposed by higher levels on regional decision-making were getting in the way of regional bodies maintaining the trust and enthusiasm of those at community level who might implement such plans (RM Consulting Group, 2006). Research on the introduction of regional bodies in South Australia concluded that regionalisation had ‘undermined

rather than facilitated regionally engaged communities ...[and] had a disruptive and alienating impact on regionally-scaled networks and relationships' (Lane et al., 2009: 70). Wallington and Lawrence (2008: 278) found that in regional NRM bodies, 'effectiveness has been defined in terms of upward accountability to national and state governments on the achievement of short-term results, an approach which is undermining the responsiveness of regional bodies to wider community concerns'. Curtis observed that responsibility for implementation of on-ground work was taken by Landcare groups, while decisions as to where investment should be directed were made between interests at regional level (Curtis, 2003a).

Internationally, despite advocacy of participatory processes in environmental governance, there are few examples of responsibilities for environmental governance being negotiated through 'appropriate representation of scale-related interests' (Cash et al., 2006).

Communities in many part of the world are still 'waiting for democracy' (Ribot, 2004).

Case studies of successful co-management between community and government do not speak to the frequency of such success. Young identifies five recurrent patterns of relationship between levels in governance regimes (Young, 2006a). In *dominance*, higher levels control lower levels through their formal authority, allocation of resources and their support for specific ways of thinking about problems. *Separation* of levels can reduce conflict by closely specifying the jurisdictional boundaries of related levels. In *merger*, levels are integrated under one authority—a solution with limited application when levels have a history of political autonomy. *Negotiated agreement* sees levels working toward mutual agreement on rules and procedures, rather than imposition of these by one level. Finally, difficulties in cross-level interactions may become catalysts for *system change* in institutional arrangements (although it often takes the conspicuous failure of several levels of governance to precipitate this).

Of these patterns, dominance is common. Central governments have been observed to facilitate consumptive, market-driven, and often unsustainable use of targeted resources,

providing 'arenas in which the interests of powerful, non-resident players generally dominate the interests of small-scale, local users' (Young 2002: 86). In countries experimenting with community participation in government decision-making, episodes of collaboration tend not to lead to transformation of wider governance processes (Coaffee and Healey, 2003; Healey, 2006). While collaboration in governance may benefit from a measure of top-down support, in environmental planning (Lane and McDonald, 2005), local economic development (Considine, 2005), and NRM (Curtis and Lockwood, 2000), such sponsorship often means that higher levels shape the agenda, despite the intentions of sponsors (Coaffee and Healey, 2003). Government interests may use network forms of governance, but still advance their interests through control over the definition of problems and solutions, and the flow of information and funding, a process identified as meta-governance (Jessop 1997).

The expectation that regionalisation of NRM decision-making would empower the community, provide fair representation of all interests, and assist in resolving conflicts was always going to be a difficult set of expectations to meet (Moore and Rockloff, 2006). The analysis of the peer groups is that regionalisation and targeted investment have strengthened the interests of state and national governments at regional level and shifted decision-making away from participatory processes in which community interests have strong representation. That critique is congruent with that of other researchers (Lane et al., 2004; Paton et al., 2004; Whelan and Oliver, 2005; Moore and Rockloff, 2006; Marshall, 2007; Wallington and Lawrence, 2008), and in particular, with the observation that communities of place have been given responsibility for on-ground action while communities of interests deliberate on planning and governance issues (Harrington et al., 2008).

At the root of marginalisation, the peer groups identified assumptions about agency on the part of government programs which Landcare Network staff, management and members had failed to challenge. As an outsider working with insiders to facilitate their

analysis, I observed several other factors that contributed to the failure of Landcare Networks to effectively challenge their marginalisation apparent in peer group discussion. These received less attention, but seem nonetheless significant. Landcare Network staff and committees of management had not targeted influential people at higher levels, and there were few bridging mechanisms between landscape and higher levels of governance. In their pattern of complaining, my co-researchers also evidenced a narrative of dispossession that made it difficult for them to challenge their marginalisation. As a minority report alongside my co-researchers' analysis, I discuss each of these factors.

### **Landcare Networks have not targeted influential people in policy**

Landcare Network staff influence higher levels by educating sympathetic individuals as they encounter them in regional, state or national levels of NRM governance. They show these individuals what Landcare does on the ground and talk through how their program can contribute to Landcare's on-ground work. But they do this opportunistically. They do not seek out people *because of* their position.

This approach showed up as the peer groups discussed DSE policy staff, whom they viewed as inaccessible and not interested in what Landcare Networks were doing. However, my co-researchers had not read established policies or kept track of policies under development. A handout developed for the second peer group, showing policy units within DSE, surprised them by revealing, for instance, that 'sustainable landscapes' was a policy area. They knew about trials of payment for ecosystems services, but not that these came out of another specialist unit. They had not read the policy documents over seven years associated with the trials, even though these were readily available on the DSE website. Expecting little influence, they ignore what is happening at policy level.

It is as if, I noted in my journal, they faced ramparts lined with bureaucrats, where for every 'good one', there are a dozen who 'just don't get it'. Staff and management committees rely on CMAs to inform them about relevant policy, but suspect that CMAs

controlled policy information coming through to Networks, shaping this to fit the CMA agenda. Reactions by CMAs to direct contact by Network staff or leaders confirm these suspicions. A Network management committee which talked directly with DSE managers on a contentious issue found managers of their CMA demanding to be told about this in advance 'so that they can manage the process'. One participant, after a presentation by Australian Government and Victorian Government agency representatives and the CMA, observed with some relish:

PG2/11: The message was that their funding priorities [the national agency's] come out of the CMA. And the CMA says 'No, no, we are only a small part of it!' The CMA does not take ownership of state government priorities, they say the state sets priorities. So in fact where are these priorities actually being set? I don't think anyone knows. They just gain momentum in those two levels of government.

NRM managers might well share a similar bemusement with decision-making in government, but they are closer to that decision-making, as participants or observers. For Landcare Network staff and management committees, policy is a world away, a world that CMAs have access to but not Landcare staff or management, whose affiliation lies with the community:

PG2/11: We sit with the community, and the CMA sits with policy, and you can draw a line through the middle.

Staff and members of committees of management describe few allies at regional, state or national level. Regional Landcare Coordinators (RLCs) might be expected to influence on their behalf, but:

PG1/1: RLCs can't advocate or push against the CMA because they are seen to be part of the CMA scene .... they are caught in this no man's land.

The Landcare Unit in DSE 'have got the power and the influence, but they are not doing it' (PG1/1). The Victorian State Landcare Team provided a potential forum for discussion between RLCs and the Landcare Unit. However, lacking staff with policy experience and



preoccupied with administrative work, that Team was unable to resource discussion of policy issues. Peak bodies, such as the Victorian Landcare Network, Victorian Farmers Federation, Landcare Australia, Australian Landcare Council, Greening Australia and other green NGOs, were oriented to agendas arrived at without consultation with Landcare Networks. They did not communicate information on policy issues or ask what Landcare Network committees of management, staff or members thought, even though this might strengthen their advocacy. Nor had many in Landcare Networks pressed these potential advocates for a closer relationship.

For their part, policy staff had few direct connections to Landcare Networks, and many reasons not to leave their desks and drive two or three hours to visit Landcare Networks in the field. The command-and-control culture of DSE requires close attention to the interests of ministers and senior managers, and a competitive stance towards other policy groups within DSE. There is no tradition of engaging Landcare Networks as partners in policy developments. In the Land Stewardship Project, for example, there had been early consultation to understand landholder views on policy instruments (see Cocklin et al., 2003), but none as policy options were developed. Development of Multiple Outcome Projects, and attempts to integrate outcomes at landscape level, were focused on interagency and intra-agency collaboration and did not engage Landcare organisations until implementation issues arose. Trials of market-based instruments worked directly with individual landholders: my co-researchers complained they were not approached before tender processes were established in their communities, or used as agents to get information out to landholders when tenders ran.

### **The lack of bridging mechanisms**

I have noted that my co-researchers observed very few mechanisms for CMAs and Landcare Networks to work together. This isolated them from discursive engagement with decision-makers at regional level: that is, from exposure to and debate about the differing rationales behind decisions at regional and landscape level. Landcare Network

staff and committees of management did not see the demands for accountability placed by funders on CMAs, or CMA advocacy of regional and local interests with funders. As a consequence, there was little to disturb their view that CMA decisions take no account of community interests.

CMA staff did not hear what Landcare Network staff did in their communities on a daily basis. CMA staff deliver outputs to meet management targets; their relationships in communities may include many personal exchanges, but are less directed toward understanding and supporting what landholders want to do than the relationships created by Landcare Network staff. CMA planning processes filter out information that does not fit current goals and assumptions, a feature of bureaucracies (Westley, 1995). CMA staff likely had some understanding of the attention required to maintain the momentum of community action, but they did not work within these demands as directly as Landcare staff. My co-researchers reported little use of any of the cross-level linkages identified by Berkes (2002): co-management, multi-stakeholder groups, boundary organisations and capacity development programs.

CMAs are not a form of co-management. Boards and staff make decisions on targets, priorities and programs with little engagement with local resource users. CMA Boards have aspirations to function as multi-stakeholder groups, but members are appointed by the state minister on the recommendation of CMA management. A review of regional NRM governance found that 'establishing effective engagement with several key stakeholders—indigenous communities, 'care' groups, local governments, agribusiness, urban and environmental constituencies—remains a significant challenge' (Lockwood et al., 2007: 54). Implementation Committees in CMA structures, which provide advice to the board and to CMA program staff, bring together community member and technical specialists, but the opinion of my co-researchers was that such people did not explore differences in priorities or approaches to achieving change. Views that differed from those of technical staff were not communicated to board level.

Nor, as I have suggested, did my co-researchers identify boundary organisations through which interaction and feedback between levels of governance might inform interdependent action (Lebel et al., 2006; Olsson et al., 2007). Conspicuously lacking was mention of boundary experiences, those shared activities that create a sense of community, or of boundary objects, which enable actors to jointly develop their knowledge (Feldman and Khademian, 2007). CMAs were seen to invest little effort in making links between their planning and Landcare decision-making. Missing were the elements found by Cash et al. (2003) that connect the worlds of science and policy: active, iterative, and inclusive communication; translation of jargon, language, experiences, and presumptions about what constitutes persuasive argument; and mediation between differing standards of knowledge. On the contrary, in interactions with technical staff of CMAs and regional programs of state government agencies, my co-researchers observed one-way communication, dominance of the rationales of funder and technical specialists, little co-production of boundary objects and little attempt to mediate differences in knowledge. The principle boundary objects – maps of assets and threats to assets – were produced at regional and state levels.

The exception has already been noted. A quarterly forum in one region, at the initiative and with the participation of the CEO of that CMA, brought Landcare Network Chairpersons together with CMA managers to talk about where each was going and how they could collaborate. Over several years, the forum enabled Landcare Networks to anticipate crises in funding, address misunderstandings about CMA decisions and funding directions, and build respect for the distinct interests of the CMA and Landcare. My co-researchers thought this atypical, and participants from that region noted that the forum was not used to make decisions about landscape level priorities.

One explanation for the lack of linkages between levels is that these do not offer enough benefit relative to their high transaction costs. Where benefits of collaboration outweigh transaction costs, linkage mechanisms are likely to develop. Lubell et al. (2002), studying

the emergence of watershed partnerships in the USA, found that partnerships were most likely to emerge in watersheds confronting severe problems, with low levels of command-and-control enforcement, and with the resources to offset transaction costs. Imperial (1999) enumerates the substantial costs of aligning effort between interests in watershed management networks. Jurisdictional complexity and the number and diversity of stakeholders drives up transaction costs. Knowledge has to be incorporated into understandings between more actors to arrive at a common understanding of a problem, its causes and solutions. Coordination costs associated with negotiating, monitoring and enforcing agreements are higher. Partnerships also bring strategic costs, as players manoeuvre to obtain benefits from new arrangements at the expense of others. A study of the political economy of cross-scale linkages in natural resource management in the Caribbean (Adger et al., 2006) reprises these themes, highlighting the capacity of superordinate levels to carry such transaction costs and maintain their power.

For CMAs, linkages to community level do not seem to be essential to meeting their responsibilities to government and maintaining credibility with funders. Landcare Networks might want linkage mechanisms, but they can rarely afford them. They are resourced to build community capacity and deliver projects: in the absence of sponsorship of linkage mechanisms by CMAs, they settle for relationships around one-off projects. They have plenty to do improving governance processes that lie *within* their authority, as the focus of seven of the nine Landcare Networks participating in the peer groups demonstrates. Finally, CMAs and DSE do not sponsor much in the way of capacity development programs. Development of Regional Landcare Support Strategies by CMAs identifies goals, but is not supported by capacity building activity. Four-yearly State Landcare Forums allow community Landcare members to talk about achievements and priorities, but for the most part, Landcare Networks work alone.

The Readiness Project was one of few opportunities for Networks to develop their knowledge, skills and collegial relationships. In the absence of bridging mechanisms,

community Landcare members were vulnerable to a further marginalising process – their own narrative of Landcare in the governance regime.

### **The narrative of dispossession**

Discussion in the early session of the peer groups frequently exhibited a cycle of complaining, in which participants assumed that they could not do much to change their situation, and that government *ought to* understand and collaborate with them. This is a narrative of dispossession. By narrative, I mean here a story about how the world is, and how one is in the world, that explains the difficulties and ambiguities of one's situation. A narrative makes sense of 'facts-as-experience' (Hajer and Laws, 2006) and reconciles these with a group's history and values.

My co-researchers' discussion traced the lines of dispossession. Regionalisation and targeted investment had displaced Landcare, which was now one of several possible agents for government priorities. Landcare was no longer trusted to act in the best interests of the environment, as it had once been. Landcare's idea of itself as the honest broker between community and government was challenged. Drawn down to its essentials, this narrative ran as follows: *Once, Landcare was part of a team. Government agencies provided expertise, government funders provided money, and Landcare did what was needed on the ground. Landcare was government's trusted partner. That time has passed. Bureaucracy is out of control. Landcare staff are kept busy with paperwork. CMAs control the targets, the investment and who gets to deliver projects. Landcare has been pushed to the bottom of the food chain. Community action is not understood or valued. Government is the problem.*

In the narrative of dispossession, commitment to community is cast against the failures of 'government'. CMAs are primarily interested in making plans and setting targets that will keep managers in funding agencies happy, irrespective of whether these actions stimulate community action on landscape change. Sometimes a Network will get lucky and find that government priorities fit what it wants to do. At other times, its priorities lie outside

those of government and it falls on lean times. The future looks grim as well.

Government targets, funding and reporting requirements will tighten, constraining even further Landcare's capacity to support community change. Even if Landcare Networks are able to get funding for their priorities today, they are living on borrowed time. The best a Landcare Network can hope for in terms of influence is to stay close to individuals in the hierarchy sympathetic to Landcare, and show them what Landcare can do on the ground. However, cultivating these allies is peripheral to the real work of facilitating the community and in any case, is liable to be disrupted by unexpected changes in government programs and the constant turnover of government staff. The policy domain is distant, unknown and unresponsive to Landcare interests. Landcare just has to make do with what it can get out of government and concentrate on its work in the community.

This narrative of dispossession played out in the presence of three other narratives:

Landcare as *the canny operator*, able to turn funding programs to its advantage, smarter and quicker than slow-moving bureaucrats; Landcare as *the battler*, facing tough times but able to last them out and regenerate when things improved; and Landcare as *the land management entrepreneur*, able to create and respond to opportunities across government and the private sector, unfettered by NRM planning and funding. All these narratives appeared in peer group discussion, but it was the narrative of dispossession that most threatened a critical and creative response to Landcare's marginalisation. Talking with local Landcare groups around the same time, Compton et al. (2009: 156) found a similar sentiment, with Landcare members 'clinging to their past desires for control and ownership', struggling to come to terms with the way CMA influence had replaced 'good old Landcare'.

My co-researchers later revised their assumptions about the place of Landcare in the governance regime. Central to that revision was the articulation of their own approach to governance as a different way of 'managing the people, and managing the responsiveness to them'. I now examine that practice, characterising it as facilitation of change directed

toward maintaining the momentum of change, and guided by deliberative decision-making that resolves differences between interests at landscape level.

## Chapter 6 The governance practice of Landcare Networks

The critique by peer groups of their situation within the NRM governance regime was pointed and passionate. The assertion that Landcare Network ways of working within communities differed in fundamental ways from those of government programs invited further exploration. Peer groups reached their critique by comparing their experience of other governance levels with their own approach to mobilising change in landscapes. I approach this as a governance practice—a body of tacit assumptions, explicit beliefs, actions and organising arrangements.

To anticipate, the governance practice of Landcare Networks comprises five practices. Three support local action in the context of the wider social-ecological system: *supporting change within communities of practice*, *targeting change at points of readiness* in the social-ecological system, and *cultivating bridging structures and bracing relationships* to hold commitments to action. When setting priorities for the Network, Landcare Network staff and management committees use a practice of *enabling of deliberation between competing interests*. They also initiate cautiously: they open possibilities in communities, but do not push too hard, a practice they describe as *letting things evolve*. I use the concept of theories of action to show how these five practices have the common intent of *maintaining the momentum of change* across communities, something my co-researchers believed was missing in government programs.

### A note on inquiry methods

As is often the case when practitioners talk with peers, my co-researchers talked as if others understood why they took the stance they did. They discussed their Network's relationship with local Landcare groups, the need to connect to neglected segments in local communities, the lack of strategic direction in their committee of management, the inflexibility of funders, the inequity of regional targets, and the failure of CMAs to consult



with communities when developing programs of action—assuming all along that their peers understood them. My co-researchers were most likely to articulate their practice when discussing how to handle a particularly stubborn difficulty, but even in these discussions, their assumptions about practice—what to do and why to do it—remained somewhat tacit.

While *they* might have understood each others' core assumptions, I either did not or could not. As an action researcher facilitating their inquiry, I had to question what was taken-for-granted, and my status as an outsider allowed me to ask such questions. In discussion of problems, I slowed down the discussion by asking for more specific descriptions of what was happening and why it was happening. When there was disagreement between group members, I again slowed down the interaction and invited people to expand their views, rather than rush over differences. Moments of agreement provided another entry point: what was behind their agreement? I attempted to make explicit elements of their theory of action: their assumptions about what was relevant in their situation, what goals were desirable, and what action appropriate.

Subsequent analysis of transcripts developed the descriptions of practice presented here. When facilitating the sessions, I had to be judicious with my questioning, lest the discussion be skewed towards my interests rather than my co-researchers. However, when working alone with the transcripts, I could separate out and assemble the practices tacit in their discussion. My analysis also draws on a review of the West Gippsland CMA's Landcare Coordinator and Facilitator program (Brewin and Thatcher, 2008), that used the stories of Landcare members and staff to evaluate the impact of Coordinators and Facilitators on NRM outcomes. Analysis of Network decision-making has been augmented with three case studies of the ways Landcare Networks develop partnerships with government programs (Colliver, 2010), conducted with Yarram Yarram Landcare Network, Bass Coast Landcare Network, and Southern Otways Landcare Network in 2009. These case studies are identified as CS1, CS2 and CS3.

## **Supporting change within communities of practice**

Landcare's foundational commitment is to facilitate local action on local problems.

Landcare Network staff return to this time and again:

PG1/1: ... the local impact, that's what drives Landcare.

Landcare Network staff and management committees view landholders as independent decision-makers, pursuing personal goals and learning how to better manage their properties and businesses, but also willing to support public good outcomes. Change by individual landholders is a central goal:

PG2/9: ... the individual landholder who says they want to participate, and who has identified their priorities, is our starting point for the catchment.

Staff and community leaders understand landholders as seeking to maximising benefits to themselves as individuals. They seek to understand the motivations of individuals and how these can be harnessed for environmental outcomes:

PG1/8: I went to see this older farmer, about 60 years old, we went and dropped off some rabbit bait at his place and we were chatting to him for a while. We were talking about Landcare, he wasn't himself a Landcare member, and he said: 'I cleared this land with my brother so many years ago, we left a lot of trees. I'd like to do a bit more stuff you know, planting trees, but if you're going to plant trees, you need a damned good fence, and I haven't really got the money, and I haven't got the energy anyway'. ... and I thought: He's sort of had his landscape change in the first place by clearing the place, and now he's too old and doesn't have the money to put it back, but he's sort of got the willingness there. He sort of knew how to go about it, he said 'You'd have to fence it off and plant it'. He understood how he would need to go about it, but he doesn't have the energy, or the time or the money.

Change in practices and collective action on environmental problems have to deliver benefits to individuals, and Landcare staff and projects can shift the balance of costs and benefits:

I know people that wouldn't have even bothered to apply, let alone to do the work, if someone hadn't actually come and walked over their property with them and talked about ideas and said there's money available to fence that creek, or to fence those trees, or to get rid of those rabbits, or whatever, nothing would have happened. (Brewin and Thatcher, 2008: 16)

At the same time as working with individuals, facilitators work with the relationships within which individuals are embedded. Landcare Network staff and management committees understand individuals as influenced by local community networks and industry networks, either of which can provoke, constrain and facilitate learning, and they take the time needed to build collaboration:

The whole scope of our Creek project is something that we could never have got up ourselves. Just the sheer amount of money and the professional knowledge about spraying and the way it's all been handled, the coordination was just something that we needed to get the whole project going. The Landcare Pest Plants and Animals Officer put in a heck of a lot of time talking to the landholders who were members of the group to get them to agree to have the weeds sprayed. It took a bit of time—it had to be the whole Creek. It had to be done all at the one time to be successful. It needed to be coordinated otherwise we'd get that same pattern as before: one person on one side sprays and the other person doesn't. (Brewin and Thatcher, 2008: 18)

Landcare staff facilitate the individual's connections to others with similar interests:

You can just ring up and someone will get back in touch with you, or put you in touch with someone else who can help you. .... talking it over, that's an important thing. (Brewin and Thatcher, 2008: 17)

In this bi-focal focus on individuals and their social context, some landholders emphasise the individual as the locus of action, with collective action contingent on the coordination of individuals:

The whole solution to the environment really comes down to the power of one, and it's the individuals doing this and that. But in a really concerted way so everyone is moving in the same direction. This is the beauty of Landcare and the

staff team and their relationship with the landholders. (Brewin and Thatcher, 2008: 16)

Others emphasis collaboration between people within the local Landcare group:

Our group is a very proactive and cohesive group because members care about their community and each other. There is no 'them and us' mentality between the original big landholders and the new lot of people that have moved in on alternative farming plots or small plots. Everyone has been proactive about re-generation, which I think has inspired a lot of the older farmers and the more traditional farmers to be more proactive in their re-generation. They see these people on their small farms planting trees and doing a lot of pasture management and fencing off critical areas and it gets them thinking about their own properties. (Brewin and Thatcher, 2008: 19)

Communities of place are the most frequently mentioned type of community. Local Landcare groups provide a setting where different segments of a local community (for example, livestock producers, croppers and lifestyle) can interact around a shared interest in the environment, while retaining their distinct interests. In areas with rapid demographic change, meeting the needs of differing community interests presents Landcare staff and members with a challenge. Landholders are also understood as operating within industries with distinctive interests, in parallel with their connections to communities of place. Landcare Network staff talk about connecting Landcare to industries where farmers are beginning to consider the environmental impacts of their practices:

PG1/1: I've come across a number of people in different industries doing the right thing, but on their own, not driven by the industry per se but good examples of what can be done. My priority is to get examples of practice across a range of industries, building up a network of focus farms.

Landcare members and staff believe individuals are influenced by exposure to relevant information and inclusion into discussion and learning with other landholders. Learning by individual landholders is not itself in question: under pressure to reduce costs and

increase productivity, farmers are assumed to be learning all the time. Research confirms this assumption. A typical dairy farmer, for example, may embark on anything up to thirty learning projects in one year (Phillips cited in Pannell et al., 2006). A change in land management practice is the end result of a long process of learning that moves from awareness of a problem or opportunity, to sourcing of information on options, through to trial of a change in practice at a small scale before (possibly) larger scale application (Pannell et al., 2006). Network staff organise information about particular practices, and often organise this to fit different levels of understanding amongst individuals. They also focus inquiry in the groups that form within communities of place and interest:

[Groups] need someone to facilitate, to frame the questions, so that people can at least look for answers, otherwise they just diverge into small selfish views, really. (Brewin and Thatcher, 2008: 23)

They support and seek to create relationships where commitments can be made and acted on. A facilitator working to revitalise local groups says:

PG2/1 ... I have had to be a bit tougher than I usually am, kind of put it back, 'this won't happen unless you do it' sort of thing, and getting the message a bit clearer. There are the few people who do everything anyway, so they are naturally there, but ..... we are looking to different people to take on those groups, so we're diversifying the people. So it feels like a very slow process. It is really community building stuff, that's what I feel like I'm doing.

Communities of place and interest overlap in membership and can compete with or support their respective activities. Later in the peer group sessions, the facilitator just quoted has made progress, and is using an emerging community of interest (a soil health group) to increase participation in communities of place (local Landcare groups).

PG2/1: I've been flat out on working up some projects. We've got a soil health sustainable production project started ... I'm attempting to get these groups kind of engaged and back into Landcare. It is free soil testing, and it uses workshops. To get the free soil testing, you have to re-engage with your Landcare group. So I'm

trying to build some relevance and engagement back into those Landcare groups, because one of those is one of the most proactive groups. And then use that as a model to truck that out across the rest of the Network area.

Network management committees are also sensitised to communities as the social context for change. The back story to the community barbeque and entertainment night described in Chapter 5 (page 112), put on to lift the flagging spirits of drought-affected farmers, illustrates this. Farmers were postponing Landcare work because they were unable to find the cash to match incentive payments. Government agencies were willing to increase incentives to 100% for approved works, but the management committee felt this would undermine the practice of landholders making a financial contribution, something that had been integral to that Landcare Network and its communities. Instead, the committee invested in a social evening. More than 125 families attended and spirits were lifted. The Coordinator recounts reactions: 'I haven't laughed in six months, it was fantastic'; 'It was just what we needed'; '... I missed it! Everyone tells me how good it was – when's the next one?'.

The attention given to relationships and learning within groups suggests that staff and management committees work with communities of practice, even if they do not name them as such. A community of practice consists of people with a shared commitment to a domain of human activity, who have a history with each other and who have developed, through their interaction and learning, a repertoire of practice (Wenger, 1998). The scope of the term 'practice' here is broad:

the language, tools, documents, images, symbols, well-defined roles, specified criteria, codified procedures, regulations, and contracts that various practices make explicit ... but it also includes the implicit relations, tacit conventions, subtle cues, untold rules of thumb, recognizable intuitions, specific perceptions, well-tuned sensitivities, embodied understandings, underlying assumptions and shared world views. (Wenger, 1998: 47)

Landcare Network staff understand that landholders operate in the midst of established practice, where knowledge is partial, the situation complex and practices provisional and open to revision. Staff respond to what landholders want to do, even when this is not a big step, because this is their gateway to the evolving practice within communities of practice, and because those relationships will hold and continue any changes in practice to which Landcare staff contribute. Within such communities, people do not only rely on expert knowledge, but set about 'improvising with the material, social and experiential resources at hand' (Wagenaar and Cook, 2005: 148). Here is a local group member talking about current practice issues and the process of learning within their local Landcare group:

Some of the major issues that we have got up in our area are of course weed control and wild dog issues. We also have issues about fencing in steep and difficult terrain, erosion and how to best manage the farm layouts to address all these issues and still make money. Landcare has been really good at addressing those issues at a community level—everyone is able to share their experiences about what worked best at different times—and together we were able work out some strategies. (Brewin and Thatcher, 2008: 21)

A correlate of the focus on communities of practice is a focus on action. Landcare Network staff and committees of management accept as a starting point whatever action a person and group wants to take, whether or not this fits regional targets, because they believe that commitment to improving practice develops through action. Tangible action is more important than the planning done by the Network in support of that action:

PG2/9: ... people joined Landcare to do landcare, and all the other stuff supports it, but you've got to be kicking a few of those goals I think along the way... so people can say 'Oh yeah we did that'.

Action leads to more action, as new practices are tested, confirmed and modified to fit local conditions. Practices that make it through this testing process become normative. Facilitators' interest in action suggests they view the group not only as an influence on the

cognitive processes of individuals, as some theories of social learning propose (Ison et al., 2000), but as a context for participation in a practice community. 'Good practice' is continually reinvented, and action between group members drives that process. Staff understand learning as situated within the relatively stable social structures of communities of practice and more diffuse networks. They approach learning as an outcome of individual habit and decision-making interacting within these structures.

Local Landcare groups clearly only engage some community interests—those related to conservation and land management. In NRM planning, interests beyond a local place have typically been understood as communities of interest and a boundary inscribed between place and other interests, an attempt that fails to resolve the tension between 'bounded geography and unbounded interest' (Harrington et al., 2008: 205) in NRM planning. Those authors propose a framework for considering interests relevant to planning for places: communities of place, affected communities, communities of identity and communities of practice (Harrington et al., 2008). Discussion in the peer groups revealed a focus on land management practice and conservation activity, not planning, and on the learning of individuals embedded within communities of practice.

Oreszczyn et al. (2010) found farmers operating in networks of practice, a concept developed by Brown and Duguid (2001) in research on knowledge sharing across organisations. In networks of practice, there are commitments to a shared enterprise and repertoire but less interaction between network members. Oreszczyn et al. also found farmers using a web of influencers at the boundary of local networks of practice, drawing in information and expertise from wider networks and non-local organisations. The discussion in peer groups did not test for the presence of networks of practice or a web of influencers: what it found was the active cultivation of communities of practice—whether based in locality or industry segment or a specialist interest like flora protection—as a vehicle for change in practice.



When Landcare Network staff or members of committees of management say of government programs that 'they just don't get it', they meant that these programs are not focused on opportunities to support learning within such communities of practice. Working at landscape level, staff and management of Landcare Networks are alive to those opportunities. With that come choices as to where to direct their limited resources across those communities of practice: I now examine how they make those choices.

### **Targeting readiness for change in the social-ecological system**

Landcare Networks support activity at many point in the social-ecological system. The Spring Newsletter of Yarram Yarram Landcare Network provides a window into that diversity (Box 1, page 152). The support offered by Network staff ranges from connecting members to another party's initiative, all the way to acting as the principal sponsor of a project. The diversity of activities and communities begs the question of how staff and management of a Landcare Network connect to and choose between these competing claims on their resources. Discussion in the peer groups suggests that Landcare Network staff search the interface between government and community for opportunities, looking for situations where parties are ready to collaborate:

PG1/1: Now the industry groups, well we don't have Landcare there. Some Landcare groups are wanting to work together, but the horticulture side of things, there's nothing, no involvement much in NRM. There's a peak body—the Centre for Agriculture and Business..... There's just not much of a relationship between NRM and hort [horticulture] .....

Decisions by Landcare Network staff and management committees draw on knowledge of the social landscape: social segments and their attitudes, networks and their leaders, and gatekeepers who might bridge networks. Management committees bring together landholders from local communities and industry sectors. Many have management roles in other civic organisations and industry bodies and many have known their communities for a long time. Landcare Networks make the most of their strengths: their ready access to

Box 1 Yarram Yarram Landcare Network Spring Newsletter, 2008

The **new Australian Government's funding program**, *Caring for our Country (CFOC)*.

An up-date on **staff changes**, with a reduction of staff from four to two full time equivalent positions because of cutbacks in Commonwealth funding for staff.

The **Perennial Pastures Demonstration Project** run in conjunction with industry partners, EverGraze, The MacKinnon Project (Uni of Melbourne) and Simon Pasture Seeds. Farmers are receiving advice on which pasture type/crop will be more persistent for their site and what type of pasture and stock management will be required. Those involved are looking at trying plants ranging from Lucerne and Chicory, right through to Salt Bush.

A call for people for the **Mentoring Program**, in which experienced landcarers volunteer to talk with new Landcare members.

The **YYLN Boxthorn Project** is removing large areas of a highly invasive weed from several sites on both private land and along roadsides. YYLN will cover 50% of all costs associated with the removal of Boxthorn e.g. spraying, cut and paint or mechanical removal by excavator or tractor.

It's spring, and the **Yarram Community Seedbank** offers a wide variety of indigenous seed for revegetation works.

The final phase of the **YYLN Weeds Project** has just commenced along Merriman Creek, with follow up spraying of weeds along the creek and surrounding riparian zone, including some paddock areas. The Project employs local spraying contractors to tackle roadside weed infestations through funding from the Wellington Shire, VicRoads and the Commonwealth's Envirofund.

The **Woodside Beach Dune Restoration Project** has been completed. YYLN coordinated a joint dune protection project with the Woodside Beach Surf Life Saving Club to hardening existing sites and reducing visitor impact on the fragile dune systems of the Woodside Beach area. Funding provided by Coastcare/Coast Action. Vegetation planting on eroded and high risk areas by the Woodside Primary School on National Tree Day. East Vic Workforce in Sale built the platform and fixed up the track and fencing for free.

A **Biodiversity Blueprint** project is introduced, which will provide landholders and landcare groups with a landscape scale map of the Jack and Albert River catchments, showing where revegetation has taken place and by whom. This map can be overlaid with a variety of information such as biodiversity importance and connectivity, Country Fire Authority firebreaks and areas of State Forest.

**The effects of Climate Change** was discussed at a local evening where Dr Jo McCubbin presented an Australian version of Al Gore's *An Inconvenient Truth*, and private forester Frank Hirst looked at national carbon markets and emission trading schemes and how these might affect farming enterprises.

As part of a **reciprocal learning partnership**, Michaela Crompton and Ray Zippel from Wimmera Landcare took a couple of days to look at land management issues in the district, including the rainforest gullies in the Wonyip area of the Strezlecki Hills, willow removal projects along the Albert River, perennial pasture projects around Won Wron, through to coastal Saltmarsh areas around Port Albert and Tarraville.

There's an update on work by **HVP Plantations**, a plantation forestry company that looks after more than 30,000 hectares of native vegetation. Restoration projects undertaken

cooperatively with West Gippsland Catchment Management Authority (WGCMA) and Landcare are described: protection of large old Red Gums and restoration of a riparian corridor at Blind Joe's Creek, Upper Flynn; removal of weeds and restoration of Strzelecki's Warm Temperate Rainforest along Macks Creek; and restoration of riparian corridors for Tiger Quoll in conjunction with the Wonyip Landcare Group.

**Coastline 2050** is underway, assessing the likely effect sea level rises and subsidence on agricultural and natural resource management values and how the expected change can be managed. The study group is made up of staff from Landcare, Wellington Shire Council, Greening Australia, DSE, Parks Victoria, the West Gippsland CMA and the Gippsland Coastal Board.

Wellington Council supplied the **Wonyip Landcare Group** with several thousand trees of differing species to assist with beautifying Old Wonyip Road.

The Department of Primary Industries is about to carry out **salinity mapping** in the Yarram region, in partnership with the Yarram Yarram Landcare Network and the West Gippsland CMA, to update information on the extent and severity of dryland salinity.

Landcare members have been busy on roadsides spraying weeds, with support from the **Weeds For Trees program**, a joint partnership between YYLN, Maffra Landcare, Wellington Shire and the DPI. Since 2001, over 1300 km of roadside have been sprayed for weeds and over 51,000 native plants have been planted across the Wellington Shire. Now is the time for bids in the next funding round.

There are also educational articles on **wombats** (their need for access through farm fences as their habitat diminishes, but how to deter their passion for newly planted native vegetation) and **Indian Mynah birds** (they out compete native birds but are here to stay).

Finally, there's **the President's letter**, a page about the new Victorian Landcare Council, and a request for members to join the Landcare Awards Organising Committee.

communities of practice within their landscapes and their license to work in the interface between community interests and government programs. They move through this interface searching for areas of mutual interest. Here is a Coordinator thinking aloud about possible areas of connection between agencies and community groups:

PG1/1: ... Agencies are particularly advocating working with the grower groups. Landcare groups do a lot of work with the Shire, have a good relationship with the Shire, because they do a lot of work on roadside verge management and stormwater management, but the Landcare groups want to work more with VicRoads. ....I'm hoping that the public-private land managers thing is where we can start to collaborate more with agencies, because there is not really much connection between local people and [agency] staff, they don't know what we're doing ..... Local government is very aware and connected but some of the other

agencies involved in land management locally are not and are not aware of landcare in the area. So I'm hoping those connections will develop ....

They also search the demographic landscape for a fit between biophysical priorities and different types of landholder:

PG2/2: We have a lot of diversity in our groups, with lifestylers and farming operations, ranging from down along the edge of the Otways where it is a lot of lifestyle people, Melbourne-escapees and so forth, buying up smaller dairy farms that are no longer dairy farms, then through to the few bigger farmers in the northern part of the area. We are not very well connected with them, and we are certainly not connected with the VFF [Victorian Farmers Federation] at all. There is a big lost opportunity there. We would like to connect to those more but still connect to the smaller lifestylers. We have to continue a lot of work with the small block holders in the steeper country, because they have a big cumulative effect.

Staff and management use their knowledge of communities to pinpoint emerging interest.

A management committee member reflects on the shifting interests amongst farmers:

PG2/3: The change in ten years in the landscape there has been phenomenal. You normally expect to see that in a generation and a half, not half a generation. [It is] a change in attitude, because the croppers, I reckon they are understanding. We used to try and run soil courses .... and we would have to cancel because you couldn't get enough there. Now they want to do them, because they want to know what's going down four, five, ten feet below the surface, they want to understand their livelihood and that is their soils. They are very switched on. That's the way they get involved in Landcare, because they weren't so much into the stuff as us livestock farmers were, because they wanted to crop every bit of land, but now they want to do it in a responsible, sustainable way.

Support for action where there is readiness for change inverts the relationships between change and planning. Staff activity is responsive to interest as it appears across communities of practice, and planning by committees of management supports this while holding awareness of problems and priorities across the social-ecological system. The voluntary basis of Landcare activity and limited resources within Networks make this an

adaptive strategy. Landcare Network staff work in communities where the preference is for doing things together, not planning:

PG2/1: We have got one group that is just totally brilliant ... and their whole focus is just talking to each other. They don't really worry much about money, they put their hands in their pockets for things like fox baiting and weed control. They get together and have cups of tea beside the road. They look after each other, they have a lot of children in common, it's a community.

Furthermore, Landcare Networks do not have a formal mandate to engage landscape or regional actors in negotiating goals and pathways for landscape change; neither do they command the discretionary funding to put plans into action. Their planning is aimed less at comprehensive programs of action than responsiveness to opportunities as these arise within communities. Landcare Networks:

PG1/1: ... support what people really want and where they want to head and for us to try and incorporate that, we need to know what people are wanting to do and where they're aiming to head so we can try and blend in what we are doing to head to that.

A corollary of this is that Network staff have to accept that communities will sometimes *not* act on opportunities:

PG1/2: ... I convened a meeting with the state agencies .... and people threw their ideas around, and they [agency staff] provided comments on the concepts at that stage, and basically they said 'You need to take more seriously the grower-driven, farmer-driven projects'. That was the clear message; could not have been clearer... and it didn't really end up being taken on. And I just .... I knew that was going to happen, and I just had let to it go. I decided 'I've created a forum, you have an opportunity to be here, they could respond if they choose to, but I can't go with it any further'.

The challenge for staff and management committees is to hold back on their wish to move ahead more quickly, to not push projects if the timing is not right, to facilitate rather than take over. Despite the slow pace, they know that when people commit to a change, they

will mobilise the resources, organisation and learning that sustains activity and makes change more likely. For staff, this also means not stepping in to pick up others' responsibilities:

PG1/4: ... I'm not going to chase it. I always thought that just sort of let people down if you, if you didn't make an excuse for them, that you're not supporting the team if you don't make an excuse for them. You really don't have to be like that .... if there is a big issue to come out of it, the person who didn't deliver is the one who can wear the problem .... But sometimes you need the impact to happen so that then all cogs realise that they have an important role to play and if they don't all turn this way, then the machine jams.

The practice of providing support where there is readiness for change adds to understandings about network forms of governance. Networks allow diversity of experience and knowledge to be applied to environmental problems (Olsson et al., 2004a). Bridging organisations and their leaders connect networks to other networks, and seed new ways of seeing problematic situations (Olsson et al., 2007). Connecting *knowledge* dispersed across a social-ecological system (Folke et al., 2003) is one way to explain networks to agency managers who assume that science leads to change, but may understate the long and slow process of building trust and reciprocity within relationships. The concept of 'readiness for change' suggests action as a purpose in engaging networks and nodes of interest across the social-ecological system.

A potential limitation of supporting action at many points in the social-ecological system is that change efforts may not attract the resources to sustain them, or be integrated with the efforts of other actors. Communities of practice can maintain practices over time and therefore secure new learning, but that learning is amplified by, and sometimes triggered by, funding and expertise. A third practice counters this limitation.

### **Cultivating bracing relationships and bridging structures**

As members of the peer groups chat at the start of each session, they appear preoccupied with money: the next funding round, new funding criteria, successful and unsuccessful funding bids. Their ability to support action by communities depends on their ability to win funding, so they use interactions with colleagues to gather information and test out their own perceptions. Ten minutes into these discussions, however, they are addressing a deeper set of concerns, a search for relationships and structures within which people from different levels can interact for sustained periods of time and begin to understand each other. This is a practice of *cultivating bracing relationships* in the interface between regional and local levels of NRM activity.

Network staff in particular connect community interests with those of government programs. Staff can connect community members to the right person within programs:

The most important thing to support us in getting from thinking about landcare and conservation activities to actually doing them has been our access to people with expertise. There's been easy access to the people from DSE and the Landcare Network. It's been their advice on what species to plant, financial incentives, or taking us to look at demonstration sites, or see what other people have done. We've had this support the whole time. Even in the early days we had support. It was fairly limited but you could get it; it is much more easily accessible nowadays..... You can just ring up and someone will get back in touch with you, or put you in touch with someone else who can help you. (Brewin and Thatcher, 2008: 17)

Landcare Network staff provide advice about the NRM funding process, and take on the time-consuming task of writing funding submissions:

I think without a facilitator or having that use of the office or having that help to put funding in and stuff like that, I think Landcare would come to a grinding halt. There is only so many hours in the day and you need to have someone there that is going to be able to answer your questions, direct you and help you with your

funding projects and to tie up all the loose ends. Otherwise it's just not going to happen. (Brewin and Thatcher, 2008: 20)

But Network staff have aims other than the immediate connection to expertise and funding. They are interested in building relationships between government programs and communities that are stable over time. They search for staff in government programs willing to understand what their Network is doing and willing to apply program guidelines flexibly to meet the Network's needs, staff who 'are willing to be flexible, compromise, the outcome is right, even though this isn't quite the way they wanted it' (PG2/9). They invite such people out into their districts to show them what the Network is doing on the ground. At their most proactive, Network staff treat projects not as one-off events but as opportunities to develop long-term relationships:

PG1/4: .... this is not about setting up a project, this is about establishing some relationships, with imagination and some flair, to identify some people who have got those capabilities, that you can tap into them. Don't talk about it as a project, talk about it as an ongoing relationship.

They look for opportunities to link their plans to agency plans, because this leads to commitment of resources and flows of information between levels. A Landcare Network Coordinator, integrating activity across several agencies, approaches the regional fisheries manager to suggest that the Network's project to monitor changes in waterways condition be written into the management plan for the Marine Park at the bottom of the catchment. Network staff bring Landcare community leaders into these interactions, to develop their relationships with government processes:

PG2/1: We had an inter-agency meeting to develop some multiple outcome projects and without hesitation a couple of the women from the community who do not normally attend Landcare group meetings happily came along. ... They understand what I am trying to do is give them a voice, and network them together and get them involved in policy direction.



Beyond relationships with individual program staff, Landcare Networks put a high value on collaborative structures that can hold a landscape focus independent of specific programs:

PG1/2: If you have something like the wine industry stuff, that's happened because they had NLP money, which comes and goes and comes and goes. But if there is a body there like 'Yarra for Life,' you can have multiple sources of investment and it can help ride that out.

Here, alliances, working groups and forums are attempts to hold commitments between differing segments of industry, community and government, despite change in programs and change in individual position holders in government programs and communities. These structure do not primarily bridge levels of governance: they assemble interests across segments of public and private enterprise. Landcare Network management committee members commonly have cross-membership on advisory structures of government agencies, industry bodies, local government and community organisations, allowing them to draw together interests from these distinct interests. Landcare Networks initiate discussion between these interests on matters that are 'falling through the cracks' of formal responsibilities :

PG2/8: We are a real facilitator of getting the Shire Councils, Barwon Water, CMA, and a lot of people who don't talk to each other, to talk to each other, which is fantastic. But then, the weird thing is, we are becoming the only long-term thinkers and the only ones with the continuity to be able to pull those sort of things together.

As a credible voice for environmental issues, the presence of a Landcare Network makes it easier for organisations like local government, businesses and philanthropic trusts, whose activities lie outside the NRM sector, to do their NRM business within a geographic area. Networks initiate contact, make the effort to understand other organisations' interests and provide an avenue for contributing to the NRM system. For a Local Government Councillor, for example, this means:

... we've got confidence now when the Landcare Network comes and talks to us. We know they're speaking on behalf of all the landcare groups in the whole shire. So it's just about having that sort of considered and uniform view. Council can trust Landcare to spend the dollars in the most appropriate way, now that the Network structure is in place. (Brewin and Thatcher, 2008: 16)

Folke, Colding, and Berkes (2003: 367) have proposed that 'social memory' is a function of the *overlapping* of diverse interests supportive of adaptation to change. Landcare Network committees of management draw in memory from the diverse sectors (agricultural, conservation, local government) in which they participate. Twelve month funding cycles, frequent changes in funding criteria and staff and a focus on outputs pull agency and sometimes Landcare Network staff short-term influence; committees of management assemble memory of NRM activity over decades. A member of one Network committee of management sees the dangers of a short-term focus:

PG1/5: A lot of programs have been about twelve months funding, and a lot of agencies have had ideas about what they think is a good idea ... they have gone: 'This will get us money, we'll do this and it will look good'. That's where that lack of discussion with the community has ultimately led to the failure to really address biophysical decline in the country I think—that lack of communal understanding of what's going on on the ground and what we've done already.

Sobels et al. (2001) found that Landcare Networks developed linkages with regional agencies which developed a shared regional identity and increased knowledge exchange with agency staff. The brokering and aligning activity of community facilitators observed in other countries (Blann et al., 2003; Olsson et al., 2007) appears in peer group discussion as the creation of stable relationships between interests across public and private sector in support of long-term strategic interests. Rydin and Holman (2004) call these *bracing* relationships. They observe that the concept of bonding social capital fails to capture the close relationships developed between people at differing levels of governance. Bridging social capital adequately describes relationships at a distance used to access other networks and other resources, but fails to capture the more focused, sustained and

instrumental relationships found in government-community partnerships. They cite an example:

... building social capital to support an urban regeneration project may involve community representatives from specific neighbourhoods, local authority departments, regional or metro-level authorities and even national-level agencies or representatives of central government. The aim here is to build relationships and common ways of working between these actors at different scales to achieve the policy goal. (Rydin and Holman, 2004: 121)

Rydin and Holman propose the concept of bracing social capital to account for cross-level and cross-sector relationships formed around a policy problem. This is social capital 'primarily concerned to strengthen links across and between scales and sectors but (which) only operates within a limited set of actors' (Rydin and Holman, 2004: 123). The trust and reciprocity developed in these relationships allow official business to be conducted with understanding of the distinctive interests of specific government and community actors.

As NRM actors with little positional power, Landcare Networks exert influence by cultivating bracing relationships and bridging structures. Landcare Network staff often claim this as a significant outcome of their activity, but the claim has not had sufficient investigation. An early study of two Landcare Networks found that they build trust in their relationships with agencies, and built connections between local and catchment level planning (Sobels et al., 2001). Oliver (2004), in a study of NRM partnerships in south-east Queensland found community-based coordinators essential to the formation of partnerships. Evaluation of the Landcare support program in West Gippsland, from which data has been drawn in this chapter, found 'evidence of a sophisticated and effective regional landcare structure' (Brewin and Thatcher, 2008: 12).

These findings from the NRM field resonate with research on partnerships in rural landscapes. Discussing local and regional relationships in rural development, Marsden

(2004) observes that 'associational interfaces (often as emerging and contingent networks and chains) are both informal and highly significant in establishing trust, common understandings, working patterns, and norms of co-operation and co-optation between different actors ..... ' (Marsden, 2004: 135). They are, however, 'vulnerable to internal and externally generated disruption,' with little certainty of persistence over time (Marsden, 2004: 135). NRM relationships display this instability, and Landcare Networks continually invest in relationships to counter the fragmentation that comes as agencies change their planning and service delivery structures. However, constant change presents opportunities to influence the practice of others, if there is a clear intent. Management committees and staff of Landcare Networks organise their practices around the goal of maintaining the momentum of change.

### **Governing to maintain the momentum of change**

The practices described here constitute a theory of action targeting the momentum of change across the social-ecological system. This theory of action is congruent with theories developed in facilitating local level activity, but responds to the demands of governing at landscape level. The impacts of local Landcare groups has been described in Chapter 2 as support for decision-making by individual landholders (Pannell et al., 2006), and support for group learning and norms of appropriate practice (Carr, 2002); the peer groups described both types of support. As theories of action, these approaches can be characterised as follows:

- *The Enterprising Landholder.* Individual landholders drive practice change, and practice change drives landscape change. Most landholders are continually improving their practices: Landcare supports improvement of their land management practices. Demonstration sites and field days give them information. Self-assessment using measures of best practice raises awareness. Workshops integrate environmental practices into production systems. Small

financial incentives can tip the balance of benefits and costs in support of action for public good outcomes. This is a rational choice theory of action.

- *We're All in This Together.* Individuals are embedded in relationships, and those relationships can support or constrain change. People are prepared to take action for the common good if they are part of the process of thinking through what is needed in landscapes, and if they can take action with others. Learning within groups is learning within a community of practice where land management practices are continually negotiated. Learning activities such as demonstration sites, field days and the discussion that goes with this supports learning and adaptation of research on practices to local conditions. This is a social practice theory of action.

These approaches to change are viewed as complementary. Network staff provide one-to-one support for individuals, but they have in mind the communities within which individuals operate. They use their work with individuals to support leadership within a community, or to draw an individual into a community of practice. In operating at landscape level, these theories are applied to maintain the momentum of change across communities.

*The Momentum of Change* became explicit as a theory in peer group discussions of how to target a Network's limited resources, how to create stable relationships in the interface between government and community, and how to cope with change in the focus of government programs. In this theory of action, the goal is to maintain change in communities of place and interest. Interest in the environment is taken as a given: staff and management support individuals who want to make a change, and trigger or augment learning between people with a shared practice; but their overarching concern is to maintain the momentum of change. Action, rather than planning, is the vehicle for

change. Action tests and extends understandings, leads to further action, and strengthens commitment to a community of place or interest.

*The Momentum of Change* uses skills, knowledge and values developed in facilitating local Landcare groups, and applies these to governance at landscape level (see Figure 51).

Constant change at local, landscape, regional and higher levels means the momentum of change cannot be taken for granted. Program staff change, programs change, planning processes change, position holders in community organisations change, Landcare membership and community demography change. Staff and management committees cannot command action, but can broker a fit between the interests of communities of place and interest, government programs and other organisations concerned with environmental condition.

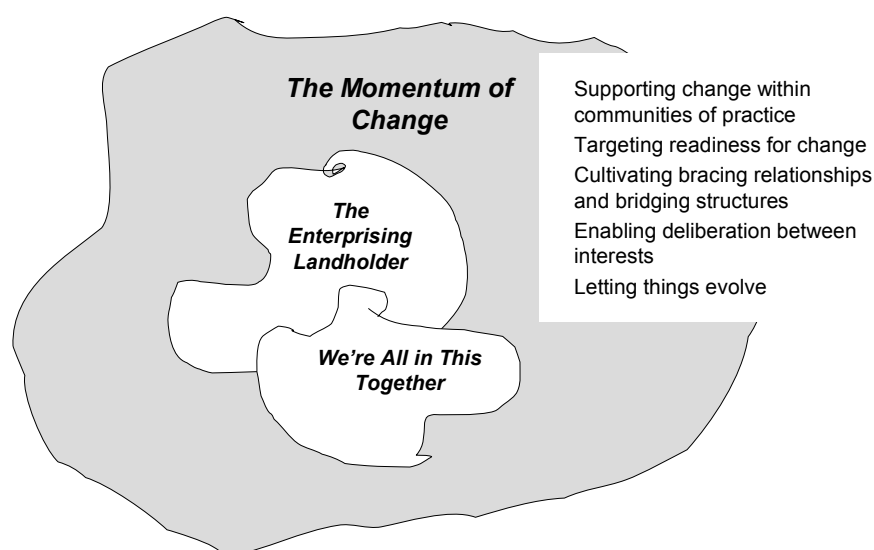


Figure 5.1 The practices of Landcare Network governance

Where government programs focused on achieving targets set at national, state and regional level, Landcare Network staff and management committees focused on supporting community action. The failure of CMAs and higher levels of governance to collaborate with Landcare Networks was judged by the peer groups as a failure on two

counts: a failure to make use of community efforts for change, and a failure to engage with communities in decision-making about landscapes. I now explore the practice underpinning second of these judgements.

### **Enabling deliberation between interests**

Participants in the peer groups were shocked by the failure of government programs to collaborate with Landcare Networks in decisions about priorities for landscapes, which they believed would develop community support for government priorities and understanding by government programs of what communities were willing to do.

Discussion would find a middle ground, if not total agreement. To understand this perspective, I will set to one side participants' assertions about the value of collaboration, their espoused theory (Argyris and Schön, 1996), and examine their theory-in-use. How do staff and management committees go about making decisions on priorities for a Landcare Network?

There was much discussion in the peer groups about the way Landcare Network management committees made decisions. For four Networks, their development focus (see Table 4.1. page 67) was to become more strategic in their decision-making.

Participants from the two Networks that had effective processes for making decisions had much to say about developing priorities and communicating priorities to CMAs. For the three Networks strengthening their connection with their local groups, the issue was how to bring local groups into decision-making within the Network.

As community-managed organisations, the locus of decision making in Landcare Networks is the management committee, whose members develop a view of the world that is wider than their local group. For Network coordinators, the task is to locate projects within wider landscape processes and priorities. The context and decision-making structures of Landcare Networks seem to fit conceptualisations of the context and structure of network governance (Stoker, 1998; Rhodes, 2000). Landcare Networks

operate within a loosely coupled network of autonomous but interdependent state and civic society actors. The public good issues they address are ones where responsibilities are ambiguous, overlapping and sometimes conflicting. Their capacity to get things done rests not on power to command, but on the negotiation of voluntary commitments to action. Local solutions are needed, but to borrow Rhodes' (2000) expression, these require learning and haggling between interests.

Members of Landcare groups are private landholders engaged in diverse pursuits: large agricultural holdings made up of several properties, single farming properties owned by families or managed for absentee owners, broadacre enterprises such as grain production, intensive agriculture such as horticulture and viticulture, lifestyleers on small lots and residents of rural towns. Local Landcare groups provide a setting where these interests work out just what is problematic about the environment and current practice, who should take responsibility, and what will be done. Management committees of Landcare Networks, made up of members nominated by local Landcare groups, confront similar questions, but at landscape level. Sobels (2006) found that Landcare Networks build on existing social networks and trust to facilitate learning and communication across participating Landcare groups. Trust allowed management committees to function as public forums for discussion in which differing views could be expressed without fear.

The current research confirms this, and found three tensions in decision-making in management committees: competition between local Landcare groups, Network interests and regional plans; tension between those who want Landcare to do what it had always done and those who want to take Landcare in new directions; and tension between delivering short-term results that keep members and funders happy, and making progress on long-term goals. In the face of these tensions, deliberation within a management committee is used to reach agreement on Network priorities. Participants in the peer groups did not use the term *deliberation*, but they would likely agree that decisions in management committees require 'thoughtful examination of issues, listening to others'



perspectives and coming to a public judgement on what represents the common good' (Roberts, 2004: 332).

Developing a landscape level view alongside local level views

Their governance structures and values commit Landcare Networks to integrating local and landscape levels, but discussion in the peer groups reveals several constraints: strong local affiliation; lack of tools to support planning at landscape level; and, a culture that views planning as a waste of time. Much of Australian agricultural production – around 70% – is exported, so farmer members of Landcare are likely to have experience in thinking beyond local level on economic issues. Doing so on environmental governance issues is less familiar:

PG1/8: ... one thing that stops these groups being strategic is that basically they are made up of volunteers, farmers, who are thinking about their own patch of ground, and are not really thinking strategically, they're thinking about what they want to do next week. To get them up to that level where they're actually thinking as a Network, where are we going as a Network strategically, that's a big battle.

Landcare's roots in local communities present a barrier:

In this region, you can't get away from local group goals, because we're separated topographically, and in rainfall zones, and through different land use types. So for instance, we've got dairy down here, very strong dairy, in the JARR catchment area. As soon as you start moving north from here, it's beef, and then sheep. Those community members know each other, but they don't interact with each other. You have very different community groups. (CS1)

In the instance being discussed here, local Landcare groups have developed at several points up the catchment, without reference to other groups; participation by those groups on the Network management committee means understanding the Network as a landscape system. Committee members who join a Landcare Network management committee thinking they can press the interests of their local groups soon find, in the words of one peer group participant, that 'they want things that are not necessarily able to

be delivered'. Membership of a management committee also means understanding the larger NRM administrative system, which offers limited resources targeting specific regional, state and national priorities. On both counts, decision-making has to go beyond the local affiliation of committee members.

Decision-making also has to grapple with a lack of tools. Data on resource condition and threats to resources is organised at regional level by asset class (water, land, biodiversity), making it difficult to understand how threats *jointly* affect a particular landscape. Most information is available in maps, but criteria underpinning classification systems and assessment criteria are unfamiliar to management committees and in some cases their staff. For example, assessments of levels of threat to vegetation communities use criteria unfamiliar to landholders. Nor are targets at regional level necessarily easily translated to landscape and local level. Network staff find it:

... excruciatingly hard to make that link, because they [CMAs] don't have clear targets. They have these airy-fairy outcomes and targets, but they're not specific targets. (CS2)

For example, targets for protection of certain vegetation communities to a percentage of their presumed extent prior to European settlement are expressed for the region, and have to be interpreted at landscape and local levels. Landcare staff want specific targets because it provides direction to action at local level:

Farmers love that detail. Landcare members love that. They relate to that sort of stuff. If they set a target of protecting 12 ha of grassy woodland, they will go straight away and say: 'Bill Scott, he's got that patch out the back. I think that's that grassy woodland stuff'. (CS1)

To Landcare staff working on the ground, baseline data underpinning targets set in regional planning is sometimes painfully absent:

DSE know they want to improve soil health, to protect water quality, so they set these targets for 10,000 ha of planned soil health improvements, and 770 actual

hectares of soil health improvement. But there is no data or monitoring to show how these targets will deliver the outcomes they want. (CS2)

Even if data are reliable and targets specific, a judgement still has to be made about effective action. The logic that links program action with change in practices is often not articulated, either for government programs or for Landcare Network projects. Landcare culture prefers immediate action over planning. Community members get involved in Landcare to organise action on the ground, not for 'more talk'; when consultation on planning by government programs produces a document but little tangible action, this attitude to planning is confirmed. If staff initiate planning, they risk being seen by community members as an agent of government, not of the community. Staff themselves are easily drawn into a focus on action at the expense of planning:

PG1/4: We have less capacity to be strategic, because there's not so much thinking space. We are trying to find 8 1/2 facilitators in this region who are not attached to a project ..... when you fund them as a project officer they get lost in the world of projects and all of their activities are about the project.

Amidst such constraints, how do management committees make decisions on landscape priorities? All Networks represented in the peer groups describe activities designed to make member groups more aware of other groups, of the Network as a whole, and of the wider NRM system. Staff organise tours for local groups so they see what is happening in other parts of the landscape and meet members of other local groups. Newsletters are used to communicate what local groups are doing and by describing the Network's success in winning support for community priorities, to 'strengthen the community's resolve' and demonstrate that 'what the Network does also fulfils what the community wants to do'. Network staff educate Landcare members about the wider NRM system and the Network's place within it, translating the language and processes used by government programs into something that makes sense to landholders:

PG1/3: They do not understand that the CMA is not Landcare..... They do not understand that we are not the holder and the keeper of all the funding. .... they do not understand the structure, and what role they play in the structure and where they fit into the structure. ... I have drawn this diagram before with the Board two times, and they still don't get it, it is a real sticking point for them.

Staff want community members to take responsibility for managing their own dealings with government programs. After a failed project bid by industry groups, a Coordinator concludes that he needs to do more to position Landcare as a facilitator, by:

PG1/2: ... starting the whole dialogue more directly, and saying 'This is NLP [the National Landcare Program], this is what it does, here's what we want for the natural resource outcomes for the area, it's an opportunity for you to \_\_\_\_\_. What do you want to do?' Your direction, our support. If you want to do something, we will help you apply.

For Network management committees, the touchstone of their decision-making is what their members want, and they research this formally and informally:

We are very conscious of being driven by Landcare members and Landcare groups. So we are constantly asking them what they are interested in, and what they want. We do numerous surveys, have lots of conversations. Any time we get together in any sort of forum, we are always collecting information on what they are looking for. Then we couple that with what we know is going on in the wider world. (CS2)

The danger of the management committee imposing its own ideas on local groups, or of being co-opted by agency goals, is countered by keeping Network priorities closely connected to landholders' goals. At Southern Otways Landcare Network, the idea of establishing a Sustainability Centre:

... came out of the Presidents [of local Landcare groups] meeting together, and not necessarily from the groups individually meeting, but there was a strong alignment with their strategic plans, and this idea complements their strategic plan. We are still going to run with all those actions, but it allows another activity to run alongside it, to incorporate education all the way through. (CS3)

Identification with the Network and its landscape is then the first way staff and management temper purely local interests. Network staff also build tools for planning. They build landscape level information systems, using regional data sets as a starting point and adding layers for specific local threats and local assessment of condition. Three of the Networks in the peer groups were building systems managed by the Network itself to record on-ground works, change in practices and impact on resource condition at landscape level. Working government program data into their own systems, or negotiating with agencies to organise monitoring relevant to their particular landscapes, they patch together a way to understand their landscapes:

Each individual [government] organisation counts how many hectares it has fenced off, but that doesn't tell you anything in terms of outcomes. That's why JARR [a catchment monitoring project] was set up, but to be honest, nobody really has a clue about how to approach that.... the baseline scientific data that should sit behind all this probably isn't there. (CS1)

Network staff cultivate agency staff willing to help them translate regional targets into action within specific landscapes. This is often a matter of working out a fit between what is *desirable* in biophysical terms, for example for protection of riparian vegetation, and what is *achievable* given the willingness of private landholders:

The native vegetation person in DSE is absolutely brilliant. He's got immense local knowledge, he's been here for a long time, he is well respected in the community. His knowledge of the Vegetation Plan is really thorough, but his way of interpreting that plan is working with us with our offset program. He is helping us to identify the best quality offsets in the different types of EVCs [Ecological Vegetation Class], and he knows intuitively how that relates back to the Vegetation Plan targets. Having those regional people who have been in the community a long time is so important. (CS2)

Finally, staff cultivate the capacities of their management committees in strategic planning. Staff of Landcare Networks often yearn for planning that provides them with clearer direction, but they know that members of the management committee must be

behind this. Landcare Networks go through three phases in developing their planning. First they *muddle through*. The management committee has few projects to oversight, and lets staff do the organising. With a permanent list of possible projects that cannot be funded, strategic planning looks superfluous. As the Network manages larger and more diverse projects, management committee and staff realise they need to *get organised* and keep on top of what's happening. Staff develop a project management system, and clarify roles and responsibilities around project initiation, implementation and reporting. An annual plan separates out streams of Network activity and sets specific goals for each:

.... we were constrained by our previous chair. He just was not a strategic thinker at all. Basically our annual plan comprised some board members and some staff working out what lay ahead and what our best options were, but it wasn't until we got our current chair that he empowered us to start doing annual plans. (CS2)

When Networks begin to seek more complex and ambitious projects, they begin to develop planning for *targeting opportunities*. Committees of management realise there are opportunities out there, but that they will need to think long-term to get hold of them:

We had a dinner in my hut, which is a tiny room, and lots of wine, and sat around saying 'what can we do?' The idea that gained traction, and you could feel the air change in the room, was this notion of the Sustainability Centre, which would expand the idea of what we did other than put trees in the ground. We don't really know where that is going to take us, but it felt right. Basically it's about building on the strengths that we've got. (CS3)

Once management committee members see this planning generate new projects, they start to value their role in shaping long-term direction:

The whole strategic direction process has lifted their focus on the Network. They are no longer coming to meetings and focusing on the nitty-gritty all the time, which slows the meetings down and leaves everyone up until midnight. They are aware of their role now and the level they need to provide advice at. (CS1)

Landcare Network staff play a critical role in developing strategic planning. They introduce planning activities with longer term reach than an annual action plan:

We have been holding planning days with the management committee every year since we formed, and it's only in the last three years that we've written that into a formal planning document. (CS2)

Staff also coach long-term, big picture thinking. Four Networks in the peer groups had internal governance policies, and three management committees had participated in training in NGO corporate governance, indicating a desire for the committee of management to act on its responsibilities. However, participants believed the Network Coordinator remained a standard setter for the management committee:

PG1/3: ... it is really important that I am at those meetings, because I am the gatekeeper. I'm the person who says at Board meetings: 'Hang on, that's not going to work, do you realise how much time that is going to take?' It would be good to do a plan where you embrace everything that is said .... but at the end of the day, our Network is doing a *strategic* plan, and I have to be there, and I put my neck on the line and say 'That's not achievable, let's not put something in we can't achieve.'

Identification with the Network and its landscapes, better tools to support planning and a management committee able to think strategically, mean community management can hold to a strategic view of the landscape and make choices between competing local interests. Agency staff embedded in a culture of planning might underestimate the achievement of Landcare Networks in developing planning, but Network staff know the process from its tenuous beginnings:

PG1/6: .... blackberries were a major distraction two years ago, and at last we're able to put up a Blackberry Taskforce project, that looks like being funded, and we're going to be able to take care of that issue in an area for those people, but that was 18 months or two years of work to get them from just seeing the plot of blackberries to having a map of the entire catchment showing where the activities are and who's taking care of it, who the investment partners are ...

## Engaging progressive and conservative views of Landcare

Setting priorities for Network activity involves an interplay between established and emerging ideas of what Landcare should be. Landcare groups draw in people with diverse interests, from affection for the natural landscape to a desire to improve productivity. Established ideas of agriculture, landscape and Landcare are constantly challenged by changing land use and demography. Management committees reflect this diversity; they are made up people keen to hold to what Landcare has been, and those who see new opportunities for Landcare activity:

PG2/3: I reckon one area where our Landcare Network can really go out ten, fifteen or twenty years is with all the green resources in our area, because we've got one wind farm already at Gellikum, we've got the big one at Wartham on the northern edge, and they are started a study in our area for a 200 turbine wind farm. And we've got the issue of blue gums, like, 10 or 12,000 ha in our Network area now. ... We'd be able to get corporate money out of them, and we thought we should be able to utilise them, and get them in there. Then there's the issue of the expanded cropping area and carbon credits, trade-offs there, so we can see some really good things, maybe that's the strengths we can utilise....

As federations of local groups, many Networks bring together both production and conservation interests, requiring committees of management to strike a balance between the two. The more contentious debates, however, centre on the Network taking up activity other than 'getting trees in the ground'. Revegetation work is readily supported by production and conservation interests, but broadening Network activity into training, farm planning, strategic planning and advocacy within the NRM system, or partnerships with urban or health interests, are all liable to be contested:

PG1/5: We've got one guy who says there are just three priorities in Landcare: revegetation, revegetation and revegetation. He's talking now about 'outdoor landcare' and 'indoor Landcare'. There's a conflict inherent in the whole thing, to marry the people who think that only on-ground works are the thing into a strategic approach.



The commitment to facilitating action initiated by landholders themselves means committees of management are cautious about moving too fast with their ideas. Should the Landcare Network keep doing what it has done in the past, which everyone understands, or head into new activities? Demographic changes keep this question alive. In areas close to regional and urban centres, a steady influx of hobby farmers and lifestyleers on small lots drives up interest in amenity and conservation, but poses the question of how to deliver services to cash-rich, time-poor tree-changers and niche producers. How can the Network make use of the organising capacity of well-educated new owners willing to commit to short, intensive bursts of activity but unwilling to take on permanent positions on Landcare groups? In areas of broadacre agriculture, farm sizes are increasing, numbers of farmers are falling as more sell or lease their properties, and the average age of farmers is increasing (Barr, 2003). Prolonged drought is forcing a rethink of broadacre practices. Members of Landcare groups in these areas have done the basics and need a new challenge:

PG2/3: We've all done the re-veg, we've all done waterways ... you can't have a second go at the rabbits, you can't have a second go at the gorse.

Progressive leaders in management committees read the social landscape for opportunities to take Landcare in new directions:

PG2/13: .... people who are living here now have an environmental focus, they don't know how to implement it, but there is concern, and I think it is a general concern and anxiety about what we're doing with the environment, and climate change is reflecting that to some extent, and people are wanting to do something about that.

Their more conservative colleagues are happy to continue what has worked in the past. Network staff facilitate debate in the management committee, and accept that change in attitudes is often slow, two steps forward and one step back. Strong personalities can sway a management committee:

PG2/4: .... I was quite taken aback by the sudden opposition from a particular person which really set the whole tone of the meeting and the group, because this person has great influence. It just suddenly turned out to be pushing a barrow uphill again, whereas I had thought we had got to that peak and we were then going to be rolling downhill, putting it all together ... all of a sudden we have a brick wall in front of us again.

Network staff influence management committee decisions but are not willing to impose their ideas. An experienced Coordinator captures the practice wisdom here concisely:

PG2/9: No matter how hard you push, and you think you are the only one that can make it happen, in fact it is dead in the water if they are not behind you.

Balancing immediate action with long-term change

A third enduring tension in Network decision-making is that between the need to organise immediate action and long-term goals for change. Landcare members put a high value on tangible action:

PG1/5: It's activity is what we are about, we like to see activity and activity is what we talk about, what gives us our publicity...

The pull toward immediate action is amplified by uncertainty and change in funding, which leads Network staff to concentrate on current funding opportunities at the expense of negotiating support for long-term goals. The question 'Is it worth it?' figures large in management committee debate about planning ahead for new areas of activity. Investing limited time in developing a more strategic view is a risky proposition when funding criteria can change unexpectedly, and when a longer term view is missing in those criteria:

PG1/5: Agencies have gone their own way and have not involved communities in thinking about what's happening in the landscape and what needs to be done and how long it will take. We have a job to do that's based on 200 years of mismanagement, we have an annual budget to put in to deal with the problem, but it is probably going to take 20 years for us to see significant change.

Landcare Networks do not plan for their own development. In a review of six Networks conducted while scoping the Readiness Project, there was little evidence of anticipation of future demands or opportunities. The questions ‘Who do we need to work with?’ and ‘Where do we need new skills and knowledge?’ were questions asked once projects started, not at inception. Capacity developed to meet project demands, or evolved out of successive small improvements in established activities like revegetation work. At the same time, awareness of substantial change in their communities and economic activity, memory of past policies forced on communities, and commitment to making a difference push management committees of Landcare Networks to think about long-term goals:

PG1/9: So that climate change thing is going to have a big impact on our whole agricultural landscape. Is it viable to produce milk in this landscape in 15 years time? Is it viable to grow wheat? And if we are forced to make some decisions, let's make some smart decisions, as opposed to replacing it with something else unsustainable.

Networks manage the tension between immediate action and long-term change in three ways. First, as we have seen, Coordinators keep introducing planning with a longer-term focus. Despite the antipathy to ‘more talk,’ management committees are open to the value of this:

PG1/6: ... they sort of struggle with it, because if they feel you're distracting them, and it's going to compromise on-ground outcomes, they get a bit annoyed. But if they see that having the discussion at a strategic level ends up in a project that gets funded and takes care of those on-ground issues, then they're happier. But it's a matter of trying to hold them through to those outcomes.

Second, having staff dedicated to building community capacity gives Networks the ability to use project opportunities to build toward long-term goals:

PG1/4: ... you need those facilitators, because you've got the infrastructure. They're ready to go. They're there churning away on things, nibbling on corners, and then

like you said, a whole lot of tumblers will click, and the next thing you know, you got some bloody great thing ...

Third, conflict between immediate action and what might support long-term change is resolved by 'letting things evolve'. A good long-term direction may not win support: Network management must be prepared to let things evolve. In fact, this phrase neatly captures the way Landcare Network staff and management committees act on their decisions, and it constitutes the fifth and final practice associated with Landcare Network governance.

### **Letting things evolve**

'I think it will evolve naturally rather than trying to force the issue', says a Coordinator of her attempts to get the horticulture sector in her area interested in environmental practices. Network staff and management committees initiate and push things along to maintain momentum, but they know that change takes time, and that people have to make their own decisions. Being in a hurry doesn't help:

PG2/9: ... they have to *do* stuff for a while, and then all of a sudden they start to see the big picture coming into their minds. They've got to understand first. And they will always make mistakes but to me that's the way the evolution goes, it's not the plan up front, there's a lot of years to get to the point where they say 'I need a plan'.

Network staff develop projects with an eye to how these will use and extend community capacity, not just for efficient delivery of biophysical outputs. Staff want groups and partnerships where people understand and make their own choices about collective action; they know this takes time. A Coordinator who has pressed his executive committee for eighteen months towards a strategic plan, as yet unsuccessfully, reassures his co-worker:

PG2/4: It'll happen when it wants to happen. I don't panic when things don't happen right away. When you get to a certain point, everything drops into place.

Committees of management ask what impact support for a project will have on people's willingness to take action. Should the Network press ahead to provide leadership, or hold back while a local group gets itself organised? Will taking up funding on offer skew attention away from where community interest is developing? Landcare Networks staff and management are willing to *let things evolve*. Rather than imposing directions on communities, Networks proceed by responding to readiness within communities. The practice of letting things evolve is also applied to the Network itself, which develops along its own trajectory:

PG1/4: Bass Coast is at one level, and Yarram is at another level, the Yarram Network will work on their JARR project in their way, but it's not the same level as what Bass Coast is at, but it's something that will grow, it's organic.

Events over which staff and management have no control introduce opportunities and constraints. Major summer season bushfires burn out Landcare plantings, but also bring communities together. Years of drought transform community attitudes to water and push water allocation and river health onto the political agenda:

PG1/4: I can't say where is the tipping point, because the bushfires might have played a big part for all I know. ... there will be more silver linings out of this drought and fire than we have problems. The fact that water is now on the agenda, I mean, we've been trying to get on the agenda for 20 years, and now people are starting to wake up.

Governance within Landcare Networks tempers initiation of change with a willingness to allow people to make their own decisions, and allow action to unfold and yield its lessons. My co-researchers emphasise action as much as talk: 'They have to *do* stuff for a while...'. Action generates understanding and opens possibilities that invite further action, or peters out to leave those possibilities dormant for a more auspicious time. Letting things evolve responds to the volition of others and the unpredictability of change in social-ecological systems. In this practice, Landcare Network staff and management committees find

themselves different from government programs, where staff are guided by a plan based on technical assessments, with outputs funded by government.

The governance of Landcare Networks operates as a coherent approach to landscape change, but my co-researchers' saw Landcare as having little influence in NRM governance. I now reexamine the question of why they have so little influence.

## Chapter 7 The discourse of community action

Landcare Networks participate in two worlds—government and its planning, and community and its action. Their core affiliation is with community, but they have an intimate association with government policy and funding. My co-researchers had assumed that they and government programs had similar goals, and that community effort would hold a place alongside government programs: lack of collaboration confounded these expectations. Government programs did not support community action comprehensively, nor did decision-making by CMAs engage community interests. In the behaviour of staff of government programs, my co-researchers saw the assumption that government programs, not community interests, could and must initiate change, and that community action was secondary to this.

The governance practices of Landcare Networks point to a discourse of community action with assumptions about agency that differ from those found in government programs. I now review two other discourses in natural resource management—collaborative planning and scientific management—then compare these with the discourse of community action. Landcare's marginalised position in NRM is explained in terms of the strengthening of the discourse of scientific management brought about by regionalisation and the policy of targeted investment.

I take discourse not simply as the expression of power relations in language, but the creation of structures and fields of action, a 'specific ensemble of ideas, concepts and categories that are produced, reproduced and transformed to give meaning to physical and social phenomena' (Hajer, 1995: 44). In governance, discourse creates and recreates institutions, providing the logic behind the rules, roles, procedures and customary behaviour of institutions (Jaworski and Coupland, 1999) that Dryzek (1996) characterises as the software behind the institutional hardware. Dryzek's (1988) theorisation will provide a basis for describing a discourse, with its ontology of social entities; the

ascription of agency and particular motives to some entities (but not to others); and the assumptions about the 'natural' social relationships within which these entities operate. Discourse, of course, is not a fixed and remains open to scrutiny and selective borrowing between discourses, as actors attempt to generate legitimacy for their preferred policies and governance regimes (Hajer, 1995).

### **The discourse of scientific management**

In the discourse of scientific management, scientific knowledge and expert opinion guide policy decisions, which in turn guide efficient and effective action on environmental degradation, administered through an impartial public service. Politicians and government managers have agency: politicians set the parameters of policy; managers interpret policy in their implementation. The motivation is efficient management of natural resources, so these continue to support human activity, and of government's financial resources, to achieve the most benefit at least cost.

The delivery mechanism for policy decisions is the bureaucratic chain of command: one bureaucracy to manage each industry sector (such as agriculture and mining) or specific resource (such as fisheries and parks). Scientists provide guidance, through their assessment of policy options and by furnishing the criteria by which the environment is assessed, but government managers make final decisions. Communities are dependent on the insight and initiative of public servants. Left to their own devices, communities will not act in the wider public interest; government must create the necessary incentives, regulations, research and education for change.

The origins of scientific management in environmental governance in the United States have been traced to governments' attempts in the late 19th and early 20th century to control unrestricted competition between private interests for the use of natural resources like timber, with the aim of efficient use of resources (Brunner and Steelman, 2005). The natural world was to be preserved and managed not for its spiritual or aesthetic benefits,



as the American conservation movement of the nineteenth century had proposed, but for its sustained utility. Speaking to a gathering of state governors in 1908, Theodore Roosevelt redefined the conservation project as resource management:

‘We have become great in a material sense because of the use of our resources, and we have just reason to be proud of our growth. But the time has come to inquire seriously what will happen when our forests are gone, when the coal, the iron, the oil, and the gas are exhausted, when the soils shall have been still further impoverished and washed into the streams, polluting the rivers, denuding the fields, and obstructing navigation’. (in Harrison, 2009: 22)

In Australia, early government programs working on environmental degradation in rural landscapes were located within agricultural agencies (Youl, 2006b), which had a history of success in using science to improve farm productivity. The discourse of scientific management became the language of government natural resource management, a title that captures key assumptions. Natural resources are what is to be managed, not social systems or ecological systems. Resources are resources for human use. Since the 1980s, public sector management in Australia has also drawn on a discourse of *managerialism*, which gives public servants latitude in interpreting the policy intent of elected representatives and seeking efficiency in service delivery. Alongside direct service provision and planning, market mechanisms have become an option for achieving policy objectives (Head, 2005a). Managerialism strengthened the guiding logic of instrumental rationality at a time when science was beginning to question the goal of efficient human use and when the means for achieving environmental health were becoming more diverse and uncertain (Pritchard and Sanderson, 2002).

For Beck (1997), the risks and hazards created by industrial modernity create such doubts, disrupting the anticipated benefits of modernity and leading citizens to critique its assumptions and institutions. By contrast, the discourse of *ecological modernisation* proposed that industrial modernity would solve the environmental problems it created. As governments struggled to manage industrial pollution, regulation of polluters became

an expensive, slow and ineffective mechanism. The policy solution was innovating enterprises, whose technological advances would deal with environmental problems, supported by science and coordinated management. Government could shift to facilitating rather than commanding (Hajer, 1995; Lockie, 1997). The discourse of ecological modernisation neatly side steps the possibility that human use will exceed the carrying capacity of ecosystems. Economic growth and ecological sustainability can continue to develop hand in hand (Hajer, 1995).

In Australia, ecological modernisation underpins research and development into sustainable agricultural practices, which are directed and funded by alliances between producer groups, government agricultural agencies and universities. Farming enterprises and vertically integrated food producers are assumed to be the agents of change, and their motives to be sustainable enterprise. Profitability and sustainable farming systems are assumed to be compatible; profitability in fact makes sustainable practice possible.

NRM activity within government has largely accepted these assumptions and applied scientific management to remediate the consequences of past agricultural practices. However, from the late 1970s, some government staff began exploring how community participation could improve application of expert knowledge, and rural community life as well (Curtis and Lockwood, 2000). With government still firmly in control of planning for rural landscapes, those pursuing participation began to draw on another discourse—that of collaborative planning.

### **The discourse of collaborative planning**

The processes of collaboration have been investigated by many different disciplines: Wood and Gray (1991: 143) found 'a welter of definitions, each having something to offer and none being entirely satisfactory by itself'. Thomson, Perry and Miller (2009) analysed many definitions and 422 collaborations to isolate five dimensions. Two are structural in nature. *Governance* is joint decision-making about rules that will govern behaviour and

relationships. *Administration* is the operating system for collaboration: the roles and responsibilities, communication channels and mechanisms for monitoring each other's activities. Two are social capital dimensions. *Mutuality* is the fit of differing and shared interests between parties. *Norms* of reciprocity and trust are the belief that others will honour their commitments, look out for your interests, and share the load equitably. One dimension involves agency. *Organisational autonomy* allows each party to 'maintain their own distinct identity and organisational authority separate from a collaborative identity' (Thomson et al., 2009: 26).

Collaborative processes and environmental problems are the subject of a vast body of research. Two streams can be identified: collaborative planning (Imperial, 1999; Innes and Booher, 1999; Wondolleck and Yaffee, 2000; Yaffee and Wondolleck, 2003; Imperial, 2005; Innes and Booher, 2005) and co-production of services by public and private sectors (Leach and Pelkey, 2001; Gusteyer et al., 2002; Oliver, 2004; Innes and Rongerude, 2005; Whelan and Oliver, 2005). Proposals for collaborative planning in environmental governance appear regularly: integrated environmental management (Cairns and Crawford, 1991), adaptive management (Holling, 1978; Lee, 1993; Holling, 1995; Stankey et al., 2005), collaborative planning (Innes and Booher, 1999), collaboration (Dukes and Firehock, 2001), collaborative learning (Daniels and Walker, 2001), collaborative natural resource management (Conley and Moote, 2001), co-management (Walker et al., 2004), adaptive governance (Dietz et al., 2003; Brunner et al., 2005), and adaptive co-management (Armitage et al., 2007).

Collaborative planning reaches decisions through deliberation between interests, but views diverge on the level of agreement possible. Healey (1997) aspires to consensus developed through relationships based on communicative rationality. Forester (1999) sees the choices in policy and planning shot through with an ambiguity that will never allow certainty, only defensible decisions. Both approaches assume a pluralist political context in which parties pursue their interests rationally. Intractable policy conflicts lie beyond

the reach of such rationality (Schön and Rein, 1994). Collaborative planning has won interest as policy makers and managers have run up against the limitations of managerialism (Adams and Hess, 2001).

In addition, there has been an interest in some quarters in *participatory democracy*. If representative democracy is unable by itself to assure legitimacy, justice, and effective administration, democracy must be reinvented through participatory processes between citizens, politicians, and public sector managers, right through the democratic process (Fung and Wright, 2003; Fung, 2006). In practice, and as the peer groups themselves observed, collaborative planning often ends up as consultation on implementation of policy and programs designed by public agencies, rather than participation in setting policy or program goals (Lane and McDonald, 2005; Head, 2005b; 2007). Public sector managers have an incentive to improve implementation by increasing awareness of programs in local communities, but are disinclined to surrender control or make their own responsibilities more complex or open to influence by higher levels in the hierarchy. The governance of collaborative spaces, for example, has been found to be defined by established institutional practices and discourses, so that collaboration becomes, in one version, discussion between a limited number of organisations that operate as a club (Skelcher et al., 2005).

### **The discourse of community action**

The governance practices of Landcare Networks indicate a discourse of community action in which the locus of change is relationships of mutual responsibility. Individuals have agency, but their practice is social, evolving in and legitimated by the communities of practice in which they participate. In communities of place, individuals hold a sense of mutual responsibility to place. Their practice is directed to learning how to manage land better and learning how to remediate degradation—for example, degraded riparian vegetation, eroded gullies or weed infestations—and protect biodiversity. Decisions made in local groups are decisions between neighbours, who have to live alongside each other

after a decision is made, so their practice is one of neighbourliness as well as environmental practice. In the communities that form around non-local interests – for example, wetlands restoration or dairying – mutual responsibility is also at work, focused on practices with environmental impacts. Individuals retain responsibility for their own activity (for example the management of their dairy farm) but interact with peers to confirm, challenge and reinvent a shared practice.

Network committees of management create legitimacy for their decision-making through deliberation that reaches agreements within relationships of mutual responsibility.

Persons here are conceived not as citizens in a representative and multi-level democracy, but as individuals in a community held together by relationships. Decisions are made between people who know each other as persons from particular parts of the landscape, from particular segments of a local community, managing particular enterprises, and with affiliations to interests other than environmental interests. Mutual responsibility takes in both the physical landscape and ongoing social relationships. A Coordinator describes members of the Network's committee of management as wanting to contribute as office bearers:

PG1/6: They feel a strong sense of responsibility to give back, which is the way life should be. All communities should be like that. Communities should support and get supported back.

This is communitarianism (Tam, 1998), in which individuals organise their shared life around the principles of mutual responsibility, citizen participation and co-operative inquiry, and through public debate about beliefs, values and behaviour. The discourse of community action resonates as well with the literature on social capital, in particular, the early research into civic society in Italy (Putnam et al., 1993), which attributed the mobilisation of community effort to locality-based relationships of reciprocity and trust.

In the discourse of community action, government programs exist at the periphery, as opportunities and constraints on action, principally through control of funding. However, reliance on government funding means Landcare Network staff and management committees must engage with the discourses of scientific management. They have no dispute with the use of science to guide decisions or with politicians setting policy direction. Government hierarchy is accepted as natural but judged to be disengaged from community intentions. The principal differences between discourses lie in assumptions about agency and motive (Table 7.1 page 189).

In the discourse of scientific management, politicians and government managers have agency; their motive, the efficient management of resources. In the discourse of community action, agency lies with relationships of mutual responsibility, and their motive is care for the land. With its assumption that interests can solve problems better together than alone, the discourse of collaborative planning fits well with that of community action. However, community action is first and foremost a discourse of action within a shared landscape, emergent from the many communities of practice within that landscape. Landcare Networks do indeed support deliberation to reach agreement on ends and means, but deliberation has more to do with aligning the self-organising activity of players than with collaborative analysis of problems and planning for action to address those problems. The two motives – care for the land and collaborative problem-solving – are close, but if there was a choice, the staff and management of Landcare Networks would likely direct their limited resources to whatever action expressed care for the land, on the grounds that this would strengthen relationships of mutual responsibility.

Table 7.1 Comparison of discourses in NRM

	<b>Community Action</b>	<b>Scientific Management</b>	<b>Collaborative Planning</b>
<b>Ontology</b>	Individuals Communities of place and interest Government managers Scientists Politicians	Politicians Government managers Scientists Communities Individuals	Citizens Organised interests Government managers Politicians
<b>Agency</b>	Relationships of mutual responsibility	Politicians Government managers	Civic interests Government managers
<b>Ascribed Motive</b>	Care for the land	Efficient management of resources	Collaborative problem-solving
<b>Relationships seen as natural</b>	Communities of place and interest Government hierarchy	Hierarchy from government to community	Competing interests

### **Why do Landcare Networks have little influence in NRM governance?**

Communities are sites of intense political activity between competing interests in which longer term public interests are not necessarily considered (Agrawal and Gibson, 1999). Governments can create a legitimate space for dialogue and decision-making at local level, and provide policy directions that assure the public interest while allowing local autonomy. Drawing on economic development literature, Considine provides a cogent summary of conclusions about these local institutions:

... (first) 'hybrid' forms of state and local community activation are likely to be robust in the face of challenges caused by free riding, opportunism and the many costs of centralized regulation, (second) ...a balance of selective incentives from above, plus endogenous development of local network strength has the greatest potential to produce sustainable hybrid institutions. Third, achieving real path breaking forms of local development requires a network governance form that can hold alternative path options ready for recovery, while acting upon the 'ensemble' effects inevitably produced by existing forms of path dependence... (fourth)

structures within governance networks need to satisfy both local and central criteria in order to have a future. (Considine, 2006: 23-24)

In NRM, regionalisation and targeted investment have invigorated the discourse of scientific management and shifted decision-making toward central criteria. Managers of government programs interact with community interests in intermittent consultation bounded by their need to manage the potential political risks of disaffected landholders. The discourse of community action may operate at community level, but interactions *between* levels are organised around the discourse of scientific management, mostly commonly in the daily interactions of managing and reporting projects.

The previous account of the history of regionalisation can now be recast in terms of contending discourses, drawing on Hajer's (2003) framework of the layers of conceptualisation through which a discourse is expressed. At the bedrock of a discourse lies a state of mind or *epistemic figure*, that 'structures the understanding of reality without actors necessarily being aware of it' (Hajer, 2003: 106). This is then overlaid by *policy vocabularies*, concepts developed by policymakers that structure policy. Finally, *storylines, myths and metaphors* align previously unrelated action possibilities and social interests to frame a problem and its solution. Storylines are broad enough to bring people together to agree on problems and approaches and vague enough to offer outcomes to interests with significantly different social and cognitive commitments.

Landcare's originating storyline of 'local action on local problems' enabled it to sponsor collaboration between community and government interests. It drew together local landholders jealous of their autonomy, staff of government agencies keen for a shopfront for their expertise, and governments wanting to mobilise social effort to deal with problems for which they lacked the resources or mandate. 'Local action on local problems' preserved the autonomy of all while allowing collaboration on matters of common concern. Through the 1990s, the storyline of 'integrated catchment management'



preserved the influence of Landcare groups, which had considerable discretion in the use of government funding at local level. Landcare's storyline remained intact.

The National Action Plan of 2002 introduced the storyline of 'targeted investment'.

Policy-makers saw targeted investment as a way to contain the financial costs of remediation and make the complexity of NRM tasks more tractable for government. The storyline was readily accepted by technical specialists, who were positioned as the arbiters of threats to assets and designers of the blueprints that would preserve waterways, biodiversity and productive land. NGOs saw targeted investment's sibling, 'competitive tendering,' as a way to get their slice of the NRM budget. Landcare groups and Networks faced a *fait accompli* to which they acquiesced – in the hope of retaining influence with the devolution of decision-making to regional bodies.

Targeted investment brought a new policy vocabulary of assets, threats and priorities. Catchment management was stripped of its collaborative and deliberative elements. Advances in geographic information systems made the underlying epistemic figure of 'resources' amenable to measurement. Natural resource management became investment in priority assets, conducted not as deliberation between community and government interests about the public good, or as integration of local and scientific knowledge, but as assessment of threats to assets using biophysical science, in service to regional, state and national goals. Design of programs was taken out of the public domain and conducted between the managers of CMAs and state agencies. Value for money displaced long-term partnership as the basis for selection of organisations for program delivery.

The working out of targeted investment has excluded the expertise and agency of Landcare Networks and local Landcare groups. Regional NRM bodies 'have been increasingly moulded, homogenised and professionalised to deliver ... programs on behalf of State/Territory Governments, and especially the Australian Government' (Robins and Dovers, 2007b: 274). Landcare Networks have developed the discourse of

community action in their governance at landscape level, but have accommodated regionalisation and targeted investment to the point where their effectiveness is compromised. The discourse of community action has lost traction in the public domain. With that, the primacy of place in decision-making has been lost – confirming Beilin’s prescient observation that ‘catchment management, at the very moment of professing to be place-based, erases difference, collapses scale and dissolves “the local”. Places, actors and local knowledge lose their influence’ (Beilin, 2001: 191). The fundamental tension in NRM governance between bounded communities of place and wider communities of interest (Harrington et al., 2008) has been resolved in favour of wider interests.

Landcare Networks have not yet found a new storyline to open up policy support for community action. Landcare staff and management have accumulated skill in bidding for government funding, but the shadow of this is an opportunism that has not challenged the assumptions of government action. One-year budgets are antithetical to long-term planning, but Networks remain dependent on annual funding. In the words of peer group participants, CMAs are ‘short-term people with short-term memories and short-term outputs’, but committees of management have not insisted on a role in regional priority-setting and program design. ‘The only way to influence decision-makers is to have your own vision’, but local Landcare members ‘don’t want to think outside the Landcare box, of all the things they could be doing’. Staff of government programs might be caught in limited notions of agency, but staff, management and members of Landcare Networks have been caught as deeply in a failure to challenge those notions.

This then was the situation when staff and members of management committees entered the peer groups. However, as my co-researchers examined Landcare’s marginalised position in the NRM system, they began to articulate and test new notions of Landcare’s place in NRM and to explore new ways to influence the governance regime. The research method itself – participatory action research – became a vehicle for changing the practices of my co-researchers, and with that, a small contributor to change in the governance

regime. The focus of the inquiry therefore shifts at this point from perceptions of the place of community-based network governance in environmental governance regimes to processes of change within those regimes, and in particular, to change by a group marginalised by dominant discourses.

## Chapter 8 Doubt and the dynamics of reframing

How do new ways of seeing problems and solutions develop within a governance regime?

While network forms of governance can operate somewhat autonomously, the problems and solutions negotiated and legitimated with centres of state power constrain their action (Jessop, 1997). Constraints can be overt, in allocation of resources and authority to act, or less obvious, in the assumptions that permeate governance arrangements and practices.

The literature on governance in social-ecological systems has found that network forms of governance can develop alternative framing of problems and solutions (Olsson et al., 2007), and that shadow networks can connect those dissatisfied with current approaches, and allow for influence on policy (Gunderson and Light 2006), in particular when crises destabilise dominant frames. But how do new views on problems and solutions develop in the first place?

In this chapter, I investigate changes that took place within the peer groups, asking in what ways and how research participants changed their view of Landcare in NRM governance. I have already noted how in early sessions, inquiry in the peer groups came with a good measure of complaint. An account of a situation where Landcare had not been consulted would lead to a further story of poor treatment at the hands of CMAs, then another. This litany of neglect typically spiraled down to the conclusion: 'They just don't get it!' Heads would nod in agreement. Government did not value community action. Government (an undifferentiated and indifferent force) was only interested in what government wanted, not in the way communities actually worked on change.

After four sessions, complaints were less likely to precipitate the litany of neglect. My co-researchers had begun to sort out what was important and distinctive in Landcare's approach to change. They were moving beyond protesting their marginalisation to questioning *why* they were marginalised. Problematic situations were still raised with passion; however, rather than seeing the world as a stand-off between *us* and *them*,

participants began to investigate NRM governance as a system of competing interests in which they could exert influence. Rather than seeing the policy domain as irrelevant or inaccessible, they began making connections to policy staff. In their interactions with CMAs, they were more explicit advocates for community interests. Some participants shifted to an overtly activist stance, looking at how they might change government policy to better support community action.

In my analysis of these changes, I use the concept of a *frame* to show that the peer groups challenged a long-established assumption that Landcare is about local action on local problems. Then I use the concept of *reframing* to describe how the peer groups moved from complaint to investigation of failure, and through that, to critique and new action. This analysis is my own: my co-researchers were interested in why they were marginalised and what they could do about it, not how they reached these outcomes. The gist of the analysis is that complaint allowed doubts to surface, a closer investigation of failure and the taking of greater responsibility for influence. As my co-researchers articulated the differences between Landcare and government programs, belief in the commitment of government to Landcare weakened. They challenged the notion that Landcare means local action on local problems, and began looking for new ways to think about Landcare in NRM governance and new ways to influence NRM policy. I describe the factors within the peer groups that supported this reframing, and locate this within the literature on how governance regimes change.

### **Frames, reframing and network forms of governance**

During twelve months of discussion and action, the place of Landcare Networks within the NRM system did not change significantly. However, my co-researchers' thinking about problems and solutions did change, and the concepts of frames and reframing are one way to make sense of this. Frames draw together facts and values into beliefs that interpret a complex and ambiguous situation as a problem requiring a certain action (Laws and Rein, 2005). In doing this, frames draw attention to a particular view of reality

and exclude other views. The process of framing – that is, of constructing frames – takes place in a field of competition between social actors. Beliefs about the seriousness of an issue or the causes of problems can be amplified. Social movements influence the views of those who might support them, given a new way to look at problems and solutions (Benford, 1997). New beliefs about who is influential, the probability of change and the necessity and propriety of ‘standing up’ on an issue can be cultivated (Snow et al., 1986).

In policy analysis, framing has been used to explain the way actors control the definition of policy problems and through those definitions, the constitution of the policy networks within which problems are addressed (Klijn and Koppenjan, 2000). Frames determine the boundaries of a policy game and the range of possible outcomes, with a limited margin for these to change in the course of negotiating policy (Klijn and Teisman, 1997). The persistence of dominant frames has been explained in terms of the ability of those with authority to make the most of people’s preference for the certainties of belief over the uneasiness of doubt (Gamson and Modigliani, 1989). In these uses of the concept, framing is understood as a process of strategic influence. In another application, reflection on frames has been proposed as a way for the policy analyst to understand apparently intractable policy problems: differences in the frames of competing interests explain that intractability (Schön and Rein, 1994).

Reframing is a change in the construction of problems that legitimates new action strategies, usually understood as emerging from competition between interests, as in Hajer’s (1995) politics of environmental discourse. In the current research however, reframing developed between practitioners as they investigated their own practice. As practitioners of a community-based network form of governance, they started from a marginalised position within the formal governance regime. They also lacked connections into wider networks of influence within that regime. The significance of both these features of their situation requires elaboration.

## Reframing within a community of practice

Interaction within a network of different practitioners, each with their distinct framing of problems and solutions, is one pathway to new frames, but there is another. In the research above, reframing emerges from competition or difference *between* frames; however, the interplay of belief and doubt *within* a community of practice can also produce reframing. Laws and Rein (2005) suggest that the doubt aroused by significant failure can generate practice-based inquiry between practitioners, producing a new frame that changes established beliefs and opens new action options. Exploring failure with fellow practitioners can hold open a space for doubt and allow new beliefs to develop.

The researchers describe interaction between community groups from different localities across the USA concerned about hazardous waste disposal. Hearing each others' stories, community members realised they not only faced similar problems, but shared similar doubts about the way in which the problem and possible action was being framed. The assumption that more science would eventually find causes and produce solutions became suspect. Over two decades, nationwide networks of community activists built an alternative frame – that of environmental justice for minorities. From this they challenged the dominant policy frame at local, state and federal levels in the governance regime. Adaptation by government programs and policy initially modified but maintained the dominant frame. Eventually (though not inevitably), adaptation failed to adequately meet sustained challenge, and policy was introduced based on the principle of environmental justice (Laws and Rein, 2005).

Thus, change in their own views of 'the problem' led networks of community groups to see how they could challenge the dominant frame. This situation speaks to that of Landcare Networks. Isolated at landscape level, without bridging organisations that engage them with regional and higher governance levels, staff and leaders of Landcare Networks have had little opportunity to talk with their peers in other Networks. Failure to maintain influence in the face of regionalisation and targeted investment brought doubt

to the frame within which Landcare had previously operated, prompting a search for more effective action and a questioning of established framing. I now describe Landcare's long-standing frame of local action on local problems, and the doubts that disturbed this frame.

### **Belief and doubt in Landcare's frame**

Landcare is understood in many ways. Campbell (1995) identified twelve interpretations of 'landcare'. Participants in this investigation held a cluster of theories of action (Figure 6.1 page 153). *The Enterprising Landholder* focused on action by individuals, *We're All in This Together* on group learning and collective action, and *The Momentum of Change* focused on maintaining the momentum of change in the social-ecological system. All theories shared the assumption that Landcare is about local action on local problems. The frame of *Local Action* legitimates community Landcare as an institution, directing attention to the local aspects of environmental problems and to local action as a way to improve landscapes.

To identify the values forming the Local Action frame, I analysed documentation of consultation for an Australian Landcare Framework conducted from 2009 to 2010 throughout Australia (National Landcare Facilitator Project, 2010). Preparation of this Framework was initiated by the federal Minister for Agriculture following protests about the cutting of funding for Landcare, and aimed to reach agreement amongst community members of Landcare as to the place of Landcare in NRM (the place of the Framework within Government policy was never clearly stated). Expressed in terms community Landcare members might use, the values articulated in those discussions were as follows (Figure 7.1):

- *Individual responsibility.* Everyone in the community has a responsibility for the environment.



- *Mutual responsibility.* Landcare is a way for us to act on our responsibilities to the environment. If we work together, we can achieve more.
- *Participation.* Everyone's got a point of view and experience to contribute, and Landcare is open to everyone who wants to contribute.
- *Learning.* There's a lot we don't know about good land management and about ecosystems. The way ahead is found in learning in action.

Beliefs legitimating community Landcare as an institution can be found in expositions of Landcare's effectiveness and its role in NRM (see for example Campbell, 1994; Cary and Webb, 2000; Second Generation Landcare Taskforce, 2002; Curtis et al., 2008). These beliefs are:

- *Change in landholder practices will change landscapes.* The problem is land management practices. Learning by landholders, supported by incentives, will change practices, and that in turn will improve landscapes. Robertson and Riches, in Campbell (1994), put this belief succinctly: 'Land degradation can only be solved by land users' (Campbell, 1994: 25).
- *Change by landholders requires collaboration at local level.* Private landholders care about the environment, but they need to support each other in working together to make necessary changes. Community Landcare is the setting where they can work together. Without this, the pace of change would be much slower.
- *Landcare is a joint commitment between landholders and government.* Landholders and government value community Landcare and will continue to support it. It is 'a central pillar to the approach to natural resource management by landholders, community groups and governments' (Commonwealth of Australia, 1999: 67).

The weakening of collaboration with CMAs raised doubt about the Local Action frame (Figure 8.1). Community Landcare had no formal role in regional decisions on investment allocation. In program delivery, CMAs collaboration with Landcare Networks was limited to regional biophysical priorities, as was funding for community priorities. These shifts threatened Landcare Networks' capacity to facilitate community action. As the peer groups discussed occasions when government programs failed to work with community Landcare, they came to see these not as irritations they could accommodate, but as evidence of a breakdown in the commitment of government to landholders.

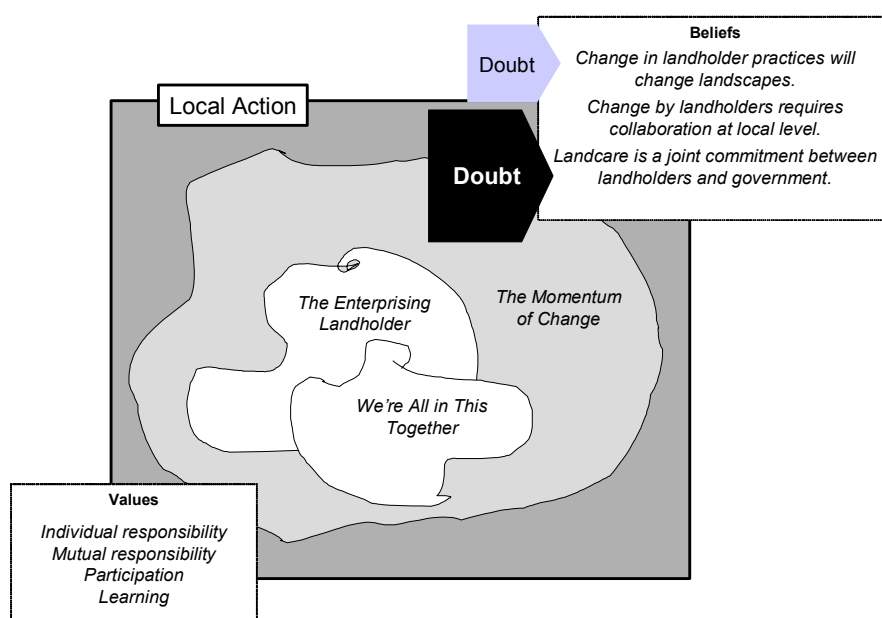


Figure 8.1 Doubts in Landcare's Local Action frame

There was one other doubt raised in one peer group. A participant asked whether voluntary change by landholders, with Landcare as the catalyst, would *ever* be enough to reverse environmental decline:

PG1/1: ... you know, my worry about Landcare being a solution for everything, and if everyone joins Landcare, we have this wonderful picture of what the world can be, and, you know, I don't want Landcare to be the be-all and end-all for the

greater environmental problems. There's got to be other ways and other avenues. I see this massive expectation being put down on Landcare ..... I am not claiming there is not odd opportunities, but I don't think anyone's stopped and had a really serious hard look at what we can really, seriously, achieve, and what are we setting out to do.

This challenge to a core belief was not pursued by this peer group, nor raised in the other. Doubt about the partnership with government proved to be the irritant around which critique developed; the prospects for reversing environmental decline through voluntary change received no further attention.

### **Entering doubt through complaint**

Doubt, observed Charles S. Peirce (1877):

is an uneasy and dissatisfied state from which we struggle to free ourselves and pass into the state of belief; while the latter is a calm and satisfactory state which we do not wish to avoid, or to change to a belief in anything else. On the contrary, we cling tenaciously, not merely to believing, but to believing just what we do believe.

Complaint avoids doubt and holds to existing beliefs. My co-researchers expressed complaint in many shades, from exasperation to rage. In particular, they targeted the failings of others:

PG1/4: To be blunt, that's government's problem, that's not Landcare's problem. It's not Landcare's problem that all these groups in regions are working on action plans and no arsehole in DSE or DPI or a CMA is ever asked to show *their* action plan for the land. That's not Landcare's problem! They're all telling us to look at their Salinity Plan, and their Biodiversity Plan and all the rest of them, but you know, where they're talking about a bit of land over there, have they come and asked the local Landcare group what their strategic plan is for that? I put the question back the other way – it's not Landcare's problem to think strategically, it's bureaucracy's problem to think strategically!

Scorn descended on those who talked about partnership while retaining control. Having been caught assuming that partnership meant decision-making between equals, the gap between rhetoric and practice infuriated participants. When opportunistic, poorly designed and dismissive consultation of community interests was cited as evidence of community participation, they raged. When new attempts at collaboration were undermined at conception by the administrative convenience sought by regional or state levels—for example, when consultation on investment priorities was rushed through in very short timeframes—they took comfort in gallows humour.

Complaint is a response to frustrated needs or aspirations, but concentrates its attention on the failures of others, which are presented as if to fully explain the problematic situation. Responsibility is attributed primarily to the other: it's all their fault. Complaints cast Landcare and 'government' in an antagonistic relationship: Landcare's noble commitment to community was cast against bumbling government bureaucracy. In the peer groups, accounts of difficulties in the NRM system received enthusiastic attention, often precipitating further stories in a pattern of *complaining* which blocked examination of their own behaviour.

The following excerpt shows a typical sequence. The group begins with the problem of the relationship between CMAs and Landcare, which precipitates complaining about all manner of failures on the part of those above. Notice how attempts by myself as facilitator and one other member to begin problem solving are overrun by more complaining:

PG1/2: .... In the Yarra For Life project, which is the network area we're talking about, I was talking to the CMA manager of strategy, and asking him what were his priorities for action in the area we are working on. We got our ideas talking to people, what are his? For example, there's a newly released native vegetation plan, for the region, what we might try and do is cut that down to landscape scale.

PG1/6: We had to do that *three* times. A\_\_\_\_\_ did that through the CMA for three of our areas.

PG1/2: It's quite variable the logic and the science behind the targets in the regional strategy. Some are really well founded, others are aspirational. There is a target for 25% of all farmers to have an EMS [Environmental Management System]. Where did that come from? 'Not enough people are doing it at the moment, so we need more people doing it'. Where is the logic behind that? The national figure is apparently only 10%. B..... just said to me: 'Check with the regional strategy team what targets they think are important for your area. Make sure your work is aligned with the regional strategy'.

RC: Will that get taken down through the Landcare Network structure ?

PG1/1: What you need is a process for the Networks to have input into the CMA's targets.

PG1/6: We have had too many meetings out of the blue, at a time and place that doesn't actually acknowledge the way the community operates. Instead of ringing up and asking 'What Landcare group meetings are coming up? Where we can come and talk about what we are doing?'. They have created these other sessions where three or four people turn up, and they call that community consultation! They should use the existing community structures, instead of trying to reinvent them.

PG1/2: With the Salinity Program, these guys are doing research on the project, and all of sudden they told us 'We want to run these sessions.' And we thought 'We have to give local groups some warning of this', so we fixed up some dates. And then they said 'Oh, we're not going to do that'. And that was a year ago, and *still* nothing has happened!

PG1/4: It gets back to resourcing. Go back twenty years, and government used to resource extension work. But now with economic rationalism, no government wants to employ anyone to actually do this sort of stuff. Government doesn't want to resource the mechanics of how it all happens. It will pay for a consultant to do a chunk, but then he will walk away. The problem is that the Commonwealth says 'But we are not running an employment program'. No matter how much I show them results, what they keep jacking up about it is that I am continuing to resource 8.5 positions that have a link to community.

PG1/6: D\_\_\_\_\_ [previous head of DSE] really got it, after we worked on him for a long time, but now he's been moved out of his position. Now we have to start working on the next one!

‘Now we have to start working on the next one!’ A sequence of complaining typically closed not with ‘What are we going to do about this?’ but with the unspoken conclusion: ‘That’s the way it is – we’re stuck at the bottom, fighting the good fight, and no-one gets what we’re on about’.

As the facilitator, I could not stop complaint, but I could disrupt the pattern of complaining by taking complaint seriously and connecting to the person who complained. Sometimes that meant sidestepping attempts to problem-solve in order to first empathise with the person’s feeling and critique. In the following excerpt, PG1/4 continues his lambasting of bureaucrats concerned only with their own plans:

PG1/4: ..... They’ve got this hierarchy of people that plan, ‘I am a plan writer, and I’m going to get promoted to this position, then this position, and I’m going to work my way up the bureaucratic tree. I’ve written the Salinity Plan, and now I’m doing biodiversity, and sod the Salinity Plan’. That sits on the shelf!

PG1/7: I think this is what Ross is about, maintaining contact with the hierarchy. I thought about this last week, I’m going to see Fisheries Victoria, who are writing a management plan for the Marine Park, and a part of that incorporates the Jack and Albert Rivers, and I am going to see that manager Thursday, because she wants to write our project into her management plan. It’s about aiming higher, getting to these key people and saying, if there’s a need, how can we get on-ground work into those plans.

RC: I am picking up that [PG1/4] is saying: it’s a two-way street, you can be strategic, and figure out who in government agencies is a good partner, and you can even diversify outside of agriculture, like into Fisheries, or climate change...

PG1/4: or horticulture ....

RC: .... or horticulture, or trees and carbon credits, but isn’t there a responsibility, well there is, on government agencies themselves to think more strategically and act more strategically at landscape scale? And getting their own integration going across their own little silos?

I try to join with PG1/4’s view of the world and flesh it out. There is a risk of colluding with the blame and stereotyping in the complaint (as in ‘their own *little silos*’), but this is a

risk worth taking, for the person who complains wants to feel the presence of people who understand how they feel and how they see the world. Attempts to look at new options *before* this, as PG1/7 does above, petered out or led to a polarisation in the group between those complaining and those trying to be positive. Engaging with the feeling and thinking in complaint became a starting point for investigation by the whole group of the situation about which the person was complaining.

### **Investigating the failure of current theories of action**

Landcare staff and leaders had been unable to change the marginalisation of Landcare Networks in NRM governance. But why? As each peer group began exploring this question, they did not step neatly through a linear problem-solving process, from problem description, to diagnosis of failure, to alternate possible actions. Rather, they moved back and forth between the elements of their current theories of action, testing each in turn (Figure 8.2, page 206). They argued as to which forces in their situation most influenced Landcare's marginalisation and which were most amenable to influence. They assessed what tactics did and did not work. They sometimes questioned the feasibility of their goals.

Rather than a cool process of analysis, this was a struggle to make sense of what was happening and what could be done. Participants jumped between situation, action and outcome. Emotion, rhetoric and analysis converged in a passionate argument, in which individuals tested what they knew and believed against each other. Anecdotes were used to demonstrate critical forces in Landcare's situation and what could and *should* be done. My contribution as facilitator was to make explicit the process of weaving theory from experience. I named elements of their theories of action as these emerged. I made sure those with differing views had a chance to elaborate their views. I asked about elements of the developing theory of action that had not had much attention.

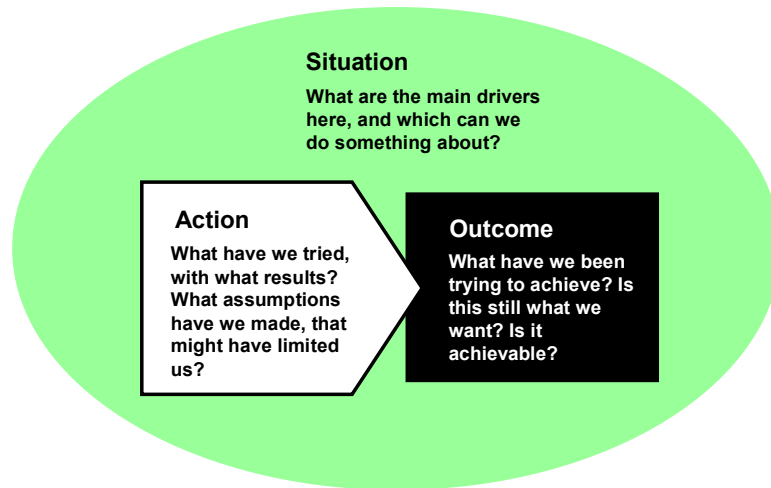


Figure 8.2 Inquiry into theories of action

To give a sense of this, another excerpt. The group has been describing the failure of CMA programs to engage with Landcare Networks. They decide this happens because NRM planners just ‘don’t understand how we are operating’. With this conclusion in place, I ask what action on their part is appropriate:

RC: So what are you going to do, if you think that's the situation?

PG1/6: Take them for a tour around the....

PG1/4: ..... that's what you do. Um, I always forget her name, the woman we just had in the MOP [Multiple Outcomes Project, a trial process in developing landscape level projects], she came down and sat with me and we talked about how she could work with Landcare as a vehicle for the Strezlecki MOP. I said if you've got ideas about your Strezlecki MOP, start talking now, don't develop a MOP and then go and say Landcare is the vehicle for implementing it. Engage them at the start of it, start talking about it, get some information out, tell people what you are planning, then they might get involved in that process. She's done that, but she is just one person, D\_\_\_ and S\_\_\_ and A\_\_\_ are just three people, there is not enough of them, you know. When we hit that next level, the J\_\_\_\_s, they don't know what's going on.

PG1/6: What about A\_\_\_\_\_?

PG1/4: I don't know him. Who is he?



RC: He sits alongside S\_\_\_\_\_.

PG1/6: He is in charge of [DSE policy area]. I travelled back from Shepparton with him one time, and gave him a real earful about what Landcare does, and he was quite surprised about everything we do.

PG1/4: And that S\_\_\_\_\_, who is an economist, they're the people who need to be shaken a little bit.

PG1/6: I think A\_\_\_\_\_ would be really good too.

RC: So, tactic #1 is to bring people down here and show them what you are doing. Tactic #2 is to sort out who is influential and develop a close relationship with them, and rely on them to communicate with those around them and to initiate opportunities for you.

PG1/7: I think a lot of the time people are thrilled that you have made the effort to actually look them up and get in contact with them, and there are people on the ground that they can incorporate into their planning. I think that's important to remember as well, that those people often don't come out and engage you, but then you can engage them, go and knock on their door.

PG1/1 has been silent throughout this interaction, but listening closely. The group has articulated two tactics for maintaining the momentum of change. PG1/1 has previously challenged the idea that Landcare groups ought to 'be more strategic'. What does she think about the ideas raised?

RC: Now I want to go back to [PG1/1: what are you thinking as you hear all these ideas about being strategic?

PG1/1: I am not saying there isn't a place for being strategic, it just shouldn't be the expectation for all Landcare groups. Or it's not the same process. I think there should be a reasonable expectation there, but we should be open-minded about how they want to go about it. And to what degree? I mean, you can be strategic at the local level, or at regional level, or at, you know, I just think we have to be conscious that we're not all going to do it the way bureaucrats do it.

PG1/4: So they ought to learn from M\_\_\_\_\_ 's approach to waterways, it's a very pragmatic approach. M\_\_\_ is the manager of our operations, okay, they have priority rivers and streams to do, not just willow reduction but riparian vegetation,

and all the rest of it, but they go to a landholder and say 'Do you want to be engaged?' 'No.' Next landholder: 'No.' Next landholder. No blame, no recrimination, they're not at the level of understanding what it is, he's not going to waste time and effort to put their hand up behind their back to get them involved. Next landholder. And when the two stretches below them start to show good in a couple of year's time, M\_\_\_ will tell you how many calls he gets from the people who have said no. And so it will be a similar approach to Networks: they're all at different levels, at different scales of doing things, and they can do what they can do, so let them do what they can do. And you watch, as soon as...

PG1/6: It's all to do with the way they want to do it.

PG1/4: Bass Coast is at one level, and the Yarram Network is at another level. Yarram couldn't have got to this point of looking at the JARR project if they hadn't gone through a whole sequence of events, and turmoils, which they have been organically going through over the last couple of years, and now, you know, a series of events have all come together ..... but you can't tell an economist about that!

RC: So that's strategic too: waiting for the opportunity, waiting for the timing, keeping the pressure or the presence, and then something .... sometimes the tumblers click into place and you've got yourself a project at landscape scale, and you've got political support.

The indefatigable PG1/4 elaborates a precept of the Momentum of Change: that it is wise to wait until people are ready to act. I add the implications for action to the cluster of actions already assembled: educate those with whom you have to work, influence those who influence agendas, and maintain a strategic frame of mind ready to seize opportunities when they appear.

The excerpt highlights the way discussion proceeded more through rhetorical argument and counter-argument than dissection and analysis. The communicative rationality envisaged for the public sphere by Habermas (1981) imagines truth negotiated in the light of reason, in face-to-face encounter. That encounter was pursued here with advocacy, protest or silence depending on the play of power moment to moment. Stories were used to communicate judgments around appropriate and inappropriate action. Agreements

were sought, but these emerged within a tumult of voices in which ideas were “made flesh” or materialised in and through the performances of embodied speaking subjects’ (Gardiner, 2004: 36). In such interactions the flow of feeling was as significant as thinking, providing a shared significance to circumstances held in common, and through that, the basis for meaning-making. Bakhtin’s view of dialogue is resonant:

a person participates wholly and throughout his whole life , with his eyes, lips, hands, soul, spirit, with his whole body and deeds. (Gardiner, 2004: 36 quoting Bakhtin 1984)

Within the hurly-burly of this interaction, the longer term dynamic to inquiry was that more differentiated understandings of the governance system led to awareness of further constraints, raising new questions and generating new distinctions. This is critique, and it had a curious relationship with complaint. Each time a new constraint was encountered, even in later sessions, there would be a new round of complaint. Complaint brought new information and renewed passion to the encounter with failure, sustaining inquiry. But where complaint flushed kernels of truth to the surface, critique worked out what these might mean for theories of action.

### **Taking responsibility**

Challenge to the Local Action frame developed from the action of my co-researchers between sessions as much as from the investigation of failure within sessions. Action is purposeful, emerging in a dialectic between actor and context, an embodiment of knowing drawn from established patterns of action between actors and within bodies (Reckwitz, 2002). The press of past practice meets the contingencies of the present moment, and practice is confirmed or reworked:

Human actors move about in the field of disputations that function as generative schemes that, while durable, leave room for improvisation and contingency. (Wagenaar and Cook, 2005: 145)

In theories of social practice, a frame is not a mental structure in the minds of actors, influencing action, but knowing within action. Reframing develops in the midst of action, provoked by situations where practice fails. For my co-researchers, the purpose of discussion was not to agree on a critique of the NRM system but to find a way to change their marginalised position. Discussion made possible new action explicit, and action itself called that language up, providing the ground of experience within which talk about practice developed.

In the midst of this, what motivated my co-researchers was not just understanding their situation, but *taking responsibility* for a shared practice. They brought the results of activity between sessions into the group, to engage again with persistent difficulties. Examining the dynamics of a situation from several perspectives, they generated options for action in a process of inquiry which left each with responsibility for action. That interplay between shared inquiry and individual responsibility is illustrated in the following excerpt, from the fourth session of the second peer group.

PG2/1 worked in an area with seven local Landcare groups and no Landcare Network. She wanted to re-establish collaboration between those groups and connect them to other people in their communities concerned about the future of the area. As she pursued this, she found little support in the CMA which employed her. In the fourth session, she recounted how one of the local Landcare groups in her area had won an award at the CMA awards night, but there had been no publicity. She was deeply disappointed, on behalf of the Landcare group and because of the missed opportunity to publicise Landcare in the community.

When she raised this with her line manager, she was told that this wasn't the CMA's responsibility. In discussion in the peer group, she realised that if things were to change, she would have to 'take some initiative'. But what was the best way to do this? In the right hand column are my observations and thoughts as the facilitator.

<i>Peer group</i>	<i>Commentary</i>
<p>PG2/12: Can I ask a question? When you come up against that negative response [from the line manager] and you think 'This guy shouldn't be like that, how can he perform his job if he's going to have an attitude like that', would you then bypass him? That is what I would tend to do: go to the Chair, or someone up the ladder and say 'I was just dumbfounded with the response I got and I can't see that this is going to further our cause, what are you going to do about it?' That sort of thing. I know it is difficult.</p>	<p>PG2/12 says what he would do, but does not impose his ideas. He accepts the difficulty of PG2/1's situation and that she will have to find her own way to deal with it.</p>
<p>PG2/1: I do feel out on a limb there. It is good having PG2/10 [another facilitator with the CMA], because we have a bit of history together, and that feels pretty good, but the only other person that feels proactive has just shifted to another role. I am continually just confused really, amazed and confused.</p>	<p>PG2/1 cannot immediately entertain PG2/12's option: she is still sensing her isolation. But her confusion signals that her assumptions are being challenged, and that she is allowing herself to be challenged.</p>
<p>PG2/16: Before this conversation, would you have actually done anything? And as a result of this conversation, are you going to do anything?</p>	<p>PG2/16 keeps the focus on taking responsibility.</p>
<p>PG2/1: Well yes, I have a bit of a picture in my head about what I want to do. I would prefer to follow PG2/12's tack, that's the kind of person I am, but I am trying to follow the new type of tack which is about change from within ..... my question to myself is how do I work with my team to get them to think strategically. We don't even have a Landcare strategy, it is still a draft, it has been going around for ever. We don't speak strategically. Our reporting is how many phone calls have we made. It is a tick-box world.</p>	<p>PG2/1 stays connected to her desire to change the team from within the team. But she sees only limitations. This is painful for her and the group. I might at this point have come in to open up options, but there's no need because the rest of the group is right with her, feeling her situation.</p>
<p>PG2/9: Maybe the expectation is unrealistic. They are not acting like a team, they are not thinking strategically. Maybe the way the structures are, that is</p>	<p>PG2/9 challenges PG2/1, pointing out aspects of her own response to the situation and the constraints within it. However, he affirms that it is her</p>

not going to happen anyway. You coming in and being someone keen and enthusiastic, that's not going to ... maybe there needs to be a bit of examination, maybe I'm reaching too high and expecting too much? You may look at it and still think, no this is the right way I want to pursue it.

PG2/16: Is it possible to pursue a strategic course in a tick-box organisation?

PG2/9: It is harder, and you may have to use different strategies to get to that point, knowing that the expectations of others are not to be a team and not to think strategically .....

PG2/16: But somewhere in that CMA, there must be people who think strategically.

PG2/10: But they would tell you they are all strategic, except for us [the facilitators], we're on-ground. We are not there to think strategically!

PG2/1: That was the offence ... I asked for a strategy!

PG2/16: Is it just your line manager who is the problem, or is it all through the system?

PG2/1: I have come in at the end of a four-year period, where each successive Landcare person has been sacked. They were moved on, they did not suit someone's needs, even if the community liked them. So there seems to me to be a constant undermining of team and cohesion ...

PG2/4: I was at a meeting at Lake Bolac, with a lots of

situation and her choice.

PG2/16 astutely summarises the problematic, placing what PG2/1 wants to do within the organisational culture.

There's likely a personal history behind PG2/9's views here, but now is not the time for me to invite that in, because the focus is on PG2/1.

PG2/16 challenges the idea that no-one in the CMA thinks strategically.

PG2/10, who works in the same CMA, is pessimistic. The wry complaint is a refuge from the pain of not being engaged by the CMA.

Oh, no! Are they going to start complaining?

PG2/16 continues inquiry as to just where the problem lies. I am relieved. I don't want the complaining to start up, but I want the group to sustain inquiry in the face of difficulty without my intervention.

PG2/1 is protesting the failure to support Landcare staff, but in the process gives the historical context.

Evidence gathers around the new

on ground people from the CMA, and I was talking to people about funding, and getting funding in place to do the work groups want to do, and this person made the comment to me that 'we would never allow groups to have that sort of money'. It struck me that they do not trust groups at that level. They do not support groups at that level. It seems to me that it might be further up the chain.

hypothesis, that *at many levels* the CMA does not support community action. Again, conclusions are only tentatively offered ('it might be further up the chain').

PG2/9: Maybe you are expecting things to happen, but organisationally they aren't supported.

The new evidence leads PG2/9 back to his previous challenge.

RC: [speaking to group as a whole] What would you do in those situations, where you can't expect much change?

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PG2/1 needs time out to digest this exchange; I step in to invite the rest of the group to reflect on their own experience. Those who have contributed now expand their exposition of the options, each presenting a different analysis and pathway:

PG2/4: In my opinion, it is a structure or hierarchy thing within the CMA. You are not going to change all your management levels, you are not going to change their opinion. If you can get the people above you on board, you are going to do a lot better, but you might have to go out and start talking to some of the Board members and start getting a good relationship up with those. Start feeding the information back in from Board level down, so that it's not just you saying it. Start getting Board members to change the perception of senior management, which then feeds down ...

PG2/9: The other option is, knowing what you know now, in future actions you just build in cover for the things you know that are going to come up. So if you took the awards one, maybe it is building in something where you had a media person, and a few dollars put aside, as part of what you might have expected other people would have done, you just build it in yourself, knowing that no one above you is going to. 'I better make sure in the future, I better cover these things myself'.

PG2/16: But if you could find a group that is thinking strategically....

Despite her earlier idea of working through her team, PG2/1 decides at the end of this session to approach the CEO. By the next session, she is pleased at the CEO's response and with herself for having started to build this relationship, even though the lack of support continues – in the latest funding round, none of the bids of her Landcare groups have been accepted by the CMA. But in the sixth session, she tells us that a spill of manager positions has left her without a manager. PG2/9 offers an observation about Landcare's positioning with the CMA. In his role as agricultural consultant, he has recently met with the board of that CMA, which is keen to connect to landholders through agricultural consultants. Observing the board's enthusiasm, he wonders whether Landcare needs to reposition itself to attract the same enthusiasm:

PG2/9: I just wondered whether they had relegated Landcare stuff to the old basket, and this is the new stuff coming in, and maybe you've got make sure you are out of the old basket into the new, is what I am thinking.

There are no happy endings. By the end of the peer group, PG2/1 is clear-eyed about her progress:

PG2/1: Well, I guess I've made some strong movement to discuss things with my CEO, and I have realised I need to go much broader and further than that, both through board members and the State Landcare kind of level. It's just sort of, in terms of that capacity building, which I believe we desperately need, in [our region] it's not being supported by the CMA.

The peer group, however, motivated by responsibility toward a shared practice, have sustained inquiry in the midst of difficulty. There were many such sequences in the later sessions of each group. Members discussed others' situations without taking on responsibility for the protagonist. Those who previously pushed their opinions now prefaced their contributions with 'maybe,' 'the other option is ...' and 'I just wondered whether ...'. Rather than wanting a single solution, group members considered each others' possible approaches, and played 'what if?' with the options. Rather than competing with each other, they built on each others' ideas. Rather than taking their



practice as a given, they allowed doubt about and inquiry into themselves, their practice, and their context.

Kemmis and McTaggart (2000) argue that practice can be understood from either an 'objective' perspective as lying outside the self; or from a 'subjective' perspective; or dialectically in terms of both. My co-researchers were at times able to hold themselves in the delicate state of 'interpreting ourselves as well as the object we are trying to interpret' (Kemmis, 2008: 125). At this point, critique matured beyond a cataloguing of oppressive social structures, practice and discourses, to an understanding of how structures, practice and discourse are interlinked in the production of their consequences.

### **Challenging the Local Action frame**

The realisation that government programs and Landcare Networks had quite different ideas of agency led peer groups first to test the possibility of stronger advocacy. If government commitment to community action could no longer be taken for granted, it might be won through persistent and targeted advocacy. Cultivating bridging relationships with sympathetic individuals on a project-by-project basis was now judged insufficient, and my co-researchers began to explore how they position Landcare Networks as participants in regional NRM planning. Networks could be presented as the means to scale up local effort to meet regional goals:

PG1/7: ... it's about aiming higher, getting to these key people and saying if there's a need, how can we get on-ground work into those plans. It's just a matter of continuing to talk to them so that what we are doing on the ground meets what they want as an outcome.

Landcare Networks could also expand Landcare's role, taking up opportunities other than on-ground remediation:

PG2/16: Groups run around individually planting trees on creeks, and so on, but there are another lot of people working on land that is covenanted, which is not part of Landcare. There's people managing public land, like the creek through

Ballarat or whatever, then there are these volcanic plains tender operations where government is paying for land preservation. So there is quite a lot of land management jobs going on not through Landcare, but maybe Landcare can get a bigger role and might take on these issues as well.

Above all, it became clearer to members of the peer groups that Landcare Networks' commitment to landholders required that they speak up for local action:

PG2/9: If you don't have a waterway on your place and you don't have remnant vegetation, and your stock died from exposure because you're on a treeless plain, then your priority is to fence and put tree plantations in, and as far as we're concerned, we should be trying to honour that. If you are ready to put time and money into that, then as a catchment group, we should be prepared to honour that.

Advocacy gained ground as a legitimate role, but claims as to the likely success of advocacy were contested. Some believed the *personality* of staff in the NRM system made them receptive to Landcare Networks, and that advocacy would fail because there were not enough sympathetic individuals around. The counter-argument was that it was all a matter of positioning Landcare as the means to implement regional level goals:

PG1/6: .... the more success stories you do have, the more of a profile you build and the less likely, as time goes by, that people will ignore you. So that is definitely the tack to take, constantly putting yourself up there in saying 'We have got all this stuff to offer—we've got the community knowledge, we've got the networks, you know, the access to getting stuff done'.

However, in advocacy, Landcare Networks still operate within the Local Action frame, and advocacy is coloured by dependence on government—a Network is a supplicant 'putting itself up there', with 'all this stuff to offer'. An alternative view was that Landcare needed to work not just at local community level, but with policy at regional and higher levels. The recognition of past failure was the starting point:

PG1/6: Now I am getting clear in my head, obviously there are a whole lot of ways you can be strategic, and I think that we do it really well at the community level

and in the areas that are immediately important to us, but not to the greater political level.

Willingness to talk directly to policy-makers about Landcare's place in NRM is *activism*.

Where advocacy positioned Landcare Networks as an effective mechanism for meeting government goals, an activist stance asserted community action as essential to landscape change and argued for change in policy. Private landholders had to be in the mix as initiators of action, not just as implementers of government priorities. In pursuing this agenda, CMAs were not the only pathway:

PG2/9: ... [in the past] we would go to [our Regional Landcare Coordinator], and we would complain to [her] about it and she would take it back to the CMA and we get nowhere. We are now .... it is the next level up, and people are taking notice. 'Why are they going the next level up? Surely they should be talking to us!' and when we say 'Well we talk to you and we're getting nowhere', then that shakes a few people up.

Talking directly to State-level managers might seem a mild form of activism. Landcare groups and Networks, however, had steered clear of public discussion of NRM policy; criticism of Landcare's treatment within NRM had been viewed as 'washing dirty linen in public,' liable to undermine bipartisan support. An activism stance meant that policy previously seen as out-of-touch and not worth considering now began to be seen as worth considering because it *was* out-of-touch:

PG1/5: I think we have to be more involved in the policy development area. I think it's time Landcare got, not political, I don't know, *involved*.

The move to activism developed slowly in the peer groups. Some participants could not see the problem: they were picking up sufficient funding. Those who had lost funding were like farmers in a long drought: things might seem pretty bad, but surely the money would eventually flow. Landcare would be back on the agenda – after all, how could government do without Landcare? Activism strengthened as this optimism was

questioned and as it became clearer that targeted investment embodied assumptions about change antithetical to Landcare's approach to landscape change:

PG2/12: If you leave landholders out ultimately they will get disenchanted with the whole thing and they will not bother rejoining the Landcare Network. Which ultimately will mean that the catchment and the region do not have a lot to do.

Doubt bloomed as the trends in recent policy were extended into the future:

PG2/4: We go outside regional priorities all the time, we have put in over 30 km of shelter belts over the last three years, from NLP and Second Gen funding, it's easy to get that sort of stuff.

PG2/9: It was easy, it's harder now. And that's the whole point, the way it is tightening up now. For example, in our last RCIP bid for 30 ha of revegetation, it had to be to certain biodiversity standards, and we said: 'What about planting trees here?' and they said: 'No, not on'. Three years ago it was acceptable: it's no longer acceptable.

RC: But at Lismore, you're getting the flow of dollars around the stuff you want to do, so it's not a problem...

PG2/10: What happens when you can't, that's the issue.

PG2/14: That's the thing, we can't comprehend that, when we are getting what we need, but when the time comes when we can't, that's what we need to look at.

PG2/4: I understand that, but the issues that he [PG2/9] says they can't get dollars for, we can.

RC: Maybe Lismore is flying under the radar on all of this.

PG2/9: Too right they are, and I'll tell you, most Landcare groups are at the moment, and in the next five years, that is all going to change. All this CAMS stuff [Catchment Activity Management System, a DSE reporting system], all this reporting, is going to have a third-party scrutinising what you're doing. You watch the way it tightens up over the next five years.

Where advocacy positioned Landcare as the local delivery agent, activism pushed beyond the Local Action frame. Those who moved to this possibility began to think that

government programs would not change until policy changed, and that policy change required a forceful challenge to current assumptions and an assertion of the claim of community groups on public resources in support of their contribution to landscape change.

Activism shifts out of the Local Action frame to a frame that addresses landscape change (Figure 8.3). In this frame, local action is *part* of what Landcare Networks do, but the overarching goal is landscape change. Landcare Networks can legitimately challenge policy that disadvantages community action, and the emergent new belief is that the transformation to sustainable landscape requires leadership from government and community.

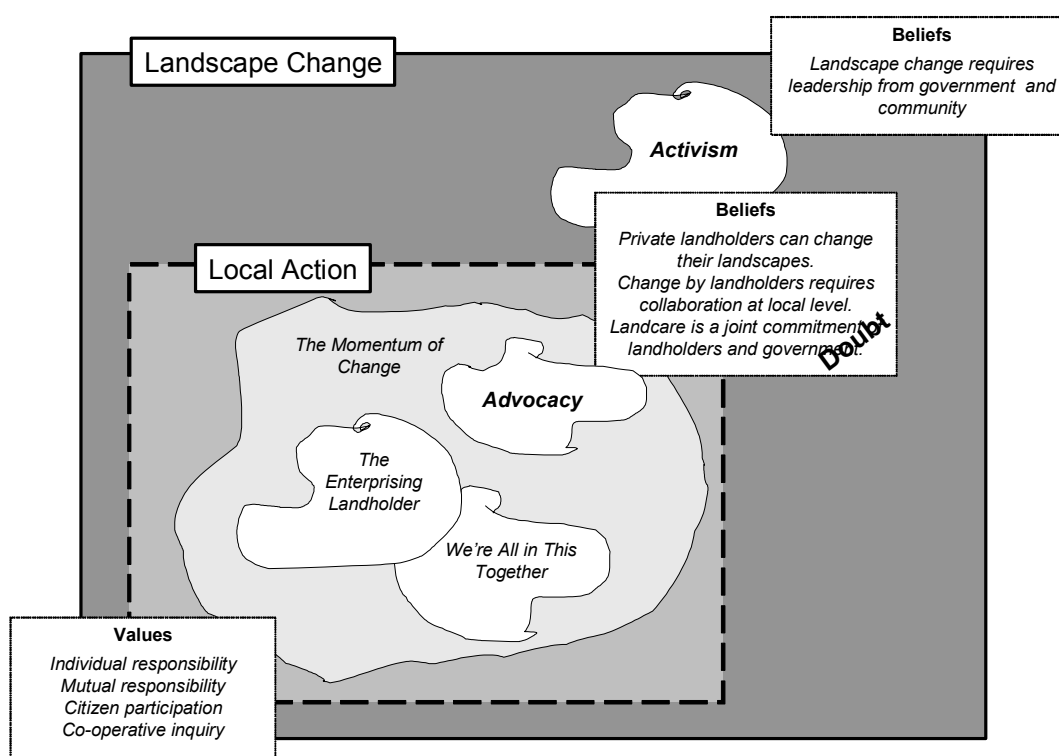


Figure 8.3 New theories of action and a new frame

Differences *within* peer groups in support for activism were related to differing assessments of the current partnership with government. Participants from Networks

which were failing to win funding were more ready to argue the need for activism. There were also differences *between* the two peer groups. In the first peer group, advocacy was embraced but activism developed less strongly than in the second. The level of collaboration with CMAs might explain this. In the first peer group, three of the four Landcare Networks came from a region with a quarterly forum between the CMA management and Landcare Network management, a history of CMA support for funding of facilitators and coordinators and integration of reporting by CMA and Networks on Landcare activities and impacts. This peer group had strong concerns about lack of collaboration, but participants believed they could influence the CMA to attend to their interests.

In the second peer group, advocacy was accepted earlier in the sequence of sessions and activism developed strongly in later sessions. Neither of the CMA regions from which participants came had effective mechanisms for consultation between Landcare Networks and CMA management. One well-established Network had a history of innovation and advocacy in the NRM system, but its funding had reduced substantially in the previous two years. Its Coordinator and Chairman became opinion leaders in the peer group, found ready support from two less well-developed Networks facing similar financial constraints, and gradually won support for the activist stance from other participating Networks. Each peer group, however, made a shift from complaint to critique. What does this have to say to the question of the influence of community organisations committed to and reliant on network forms of governance?

### **How do new ways of framing problems develop?**

Network forms of governance and shadow networks both support reframing that can influence the dominant frames of current policy and governance relationships. The current research has explored the role of communities of practice, where doubt can lead to reframing between practitioners, and provide a basis for challenging assumptions in the

wider governance regime. A fine-grained account of reframing is advanced through five propositions, summarised graphically in Figure 8.4. page 222.

1. *Inquiry between peers holds open a space for doubt.* Landcare Networks' loss of support in the NRM system prompted doubt in the belief that Landcare is a partnership between community and government. The peer groups of the Readiness Project provided an authorised space where the doubts raised by Landcare's marginalised position could be expressed and explored. Collegial inquiry between practitioners allowed expression and exploration of doubt, and accelerated inquiry.
2. *Embracing complaint opens up inquiry.* Complaint holds the emotional commitment needed for inquiry, and information about problematic situations. However, the difficulty experienced by the person with a complaint has to be actively embraced by their peers, or a pattern of complaining will prevent inquiry. In the peer groups, the facilitator displaced the pattern of complaining and engaged the emotional and intellectual substance of complaint. This was enough to establish a norm of inquiry. Without this, it is uncertain whether the peer groups would have taken the path to critique.
3. *Investigating failure builds critique.* Understanding what contributes to repeated failure to achieve goals builds a critique of problematic situations. Inquiry questions and rebuilds assumptions about goals, critical forces and actions. In the peer groups, this was not a rational problem-solving process, but a passionate argument about Landcare's situation which progressively revealed, questioned and reworked assumptions.
4. *Taking responsibility grounds critique in action.* The impetus behind critique was not in the first instance to reach understanding, but to find new actions that would change the marginalisation of Landcare. Awareness of failure then provoked staff and members of management committees to take responsibility for making their Landcare

Networks more influential, testing critique through action to influence the governance regime.

5. *Critique can generate new theories of action within current frames, and open new frames.*

Participants in the peer groups began their search for more effective action within their established frame of local action on local problems. As critique weakened a core belief in the local action frame, the frame became permeable. Actions beyond that frame could be explored, and the outlines of a new frame constructed.

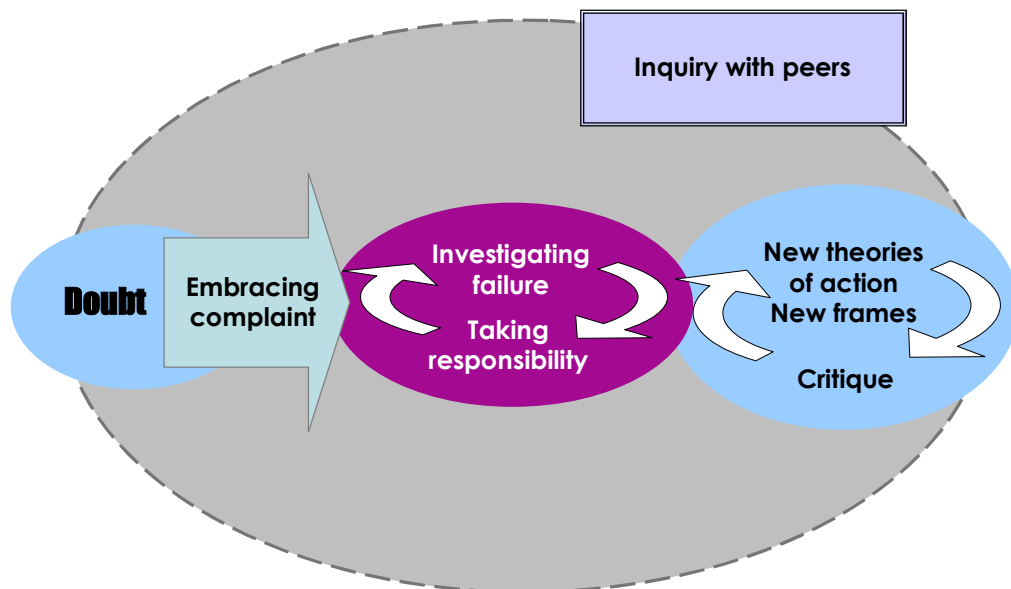


Figure 8.4 Reframing in the peer groups

Participatory action research provided those marginalised by a dominant discourse with a public sphere in which to express complaint, investigate failure and take responsibility for developing influence. However, there are several caveats. Not all failure will produce doubt in core beliefs; in this case, failure threatened Landcare Networks' central purpose and motivated inquiry. Second, this is not a path for the faint-of-heart. Challenge to a dominant discourse is possible only by heading in the apparently opposite direction and



challenging failure in the practices of the marginalised community. Third, inquiry has to be sustained. At a minimum, this means frequent interaction with peers in a situation where norms of inquiry can develop.

The Readiness Project deliberately created conditions for inquiry. Could staff and community leaders of Landcare Networks have created those conditions *without* the Readiness Project? Failure had generated doubt, but practitioners had limited opportunities to meet and talk. Meetings of Network management committees and irregular meetings convened by CMAs or the State Landcare Program were focused on activity within the current frame. My impression is that the peer groups *intensified* a change underway, mobilising a nascent community of practice; the desire to be more effective then drove the movement from complaint to critique. The analysis of reframing has so far concentrated on interaction between members of the peer groups. Still to be examined are the establishment and maintenance of the peer groups as legitimate and resourced spaces for inquiry into practice, and aspects of facilitation intended not simply to support inquiry, but to provoke it. Without these, the intensification of doubt and inquiry would have been less likely.

## Chapter 9 Opening the space for inquiry in action

The peer groups provided a space for inquiry where doubts could surface and current theories of action and frames could be questioned. In Chapter 4, I described facilitation practices for managing the inquiry task, for deepening inquiry and for building inquiry skills. Chapter 8 described how these were applied to embrace complaint and weave theories from experience. However, other critical aspects of facilitation of the inquiry have remained in the background. Not have I revisited how the inquiry space was established, or analysed how it was maintained over the two years of the research, and for a further year. The modest success of the peer groups in supporting reframing nudges these factors to the foreground, because those who work day-by-day within governance are primary avenue for knowledge of and change in a regime.

The core action research at this points connects to the question of how research can generate knowledge that plausibly represents reality and is of immediate use to those within a situation. In Chapter 4, I described participatory action research as such a methodology. In this chapter, I reflect on my own actions, and characterise my facilitation of the peer groups as *facilitating with activist intent* and my actions as a consultant in establishing the peer groups as *improvising at the boundary* between the inquiry space and its organisational setting. Both factors supported the shift from complaint to critique (Figure 9.1, page 225). My analysis once again draws on transcripts of peer group discussion, but also on Project reports, presentations, emails between myself and participants, notes of meetings between the Project Manager and myself, and the journal in which I reviewed events in the project as they unfolded.

Reflection on practice draws on a tradition that began with the inquiry of Plato, who used personal reflection to test the congruence of beliefs and personal experience (Hill, 2010). John Dewey positioned reflection on experience as the basis for learning, defining reflective thought as 'active, persistent and careful consideration of any belief or

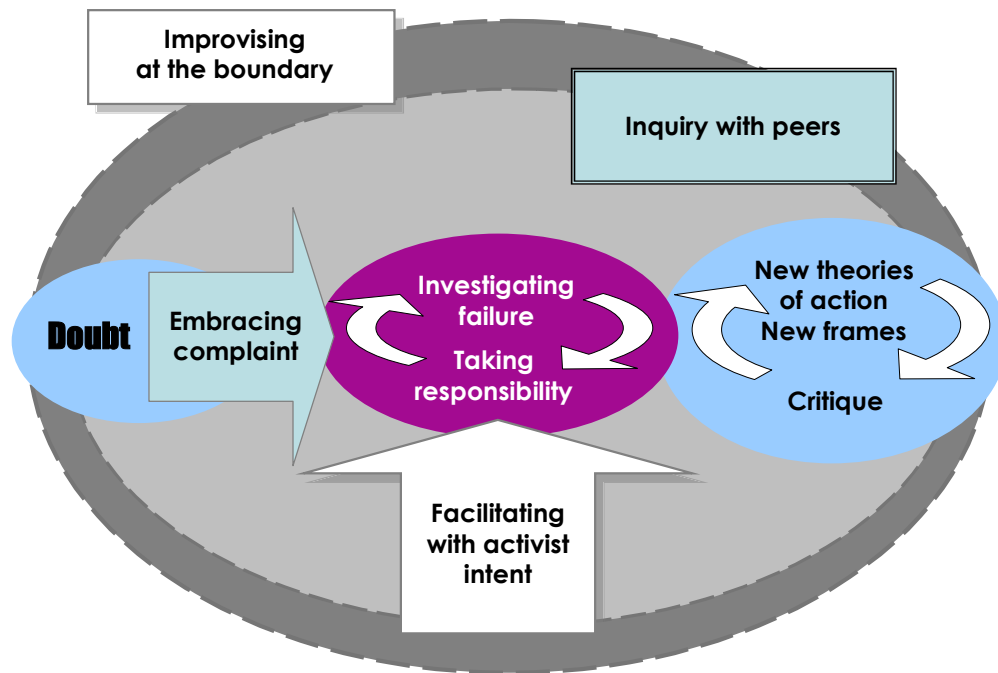


Figure 9.1 Factors supporting inquiry into governance

supposed form of knowledge in the light of the grounds that support it' (Dewey, 1933: 5). He identified problems as progenitors of reflection, and elaborated the cognitive strategies that could open up understanding. Boud, Keogh and Walker (1985) demonstrated the significance of engagement with the feeling component of experience in reflective thinking, which Dewey had neglected. Schön (1983) described reflection as an everyday process of practitioners, in which tacit knowledge is made explicit and subject to testing in the flow of work:

The practitioner allows himself to experience surprise, puzzlement, or confusion in a situation which he finds uncertain or unique. He reflects on the phenomenon before him, and on the prior understandings which have been implicit in his behaviour. He carries out an experiment which serves to generate both a new understanding of the phenomenon and a change in the situation. (Schön, 1983: 68)

In the 1970s and 1980s, the emergence of an explicit emancipatory intent in participatory action research required facilitators of inquiry to reflect on assumptions and motivations behind their own actions. Where they failed to do this, they were liable to impose

analyses and solutions (Rahman, 2006). First-person inquiry – reflection that investigates the researcher’s experience – has been investigated (Chandler and Torbert, 2003; Torbert, 2006; Torbert and Taylor, 2008), and investigation by a practitioner of their own practice has developed as a distinct strand within action research (McNiff and Whitehead, 2009; Hill, 2010).

My own skills in reflection in action were established in my ten year apprenticeship in psychodrama and sociodrama. Here, the assumption was that the director participates, consciously and unconsciously, in the dynamics of the social system being explored.

One’s response as the director in thoughts, feelings and actions is therefore at all times a source of information about the system being investigated, but requires awareness of that response and reflection in the moment. My apprenticeship gave me the opportunity to hold this stance while facilitating a group’s enactment of and inquiry into a social system. The other significant influence was Argyris and Schön’s (1996) distinction between single-loop learning, which searches for effective action, and double-loop learning, which holds assumptions about action, goals and context all open to examination. I had applied this distinction with great benefit in action learning in organisations and in my own reflection on practice.

### **Facilitating with activist intent**

Carr and Kemmis (1986) draw on Habermas to identify three intentions in action research: a search for effective means to given ends, rooted in the empirical-analytic research tradition; an interest in wise and prudent practice, that draws on interpretive methodology to understand self in social context; and an emancipatory interest, which draws on critical theory and critical research. What came to be known as *participatory* action research developed to support practical knowing of self in context and to transform organisations and social systems by challenging the constraints of tradition, self-deception and coercion (Carr and Kemmis, 1986).

In the participatory research that developed in South America in the 1970s, social scientists broke with the positivist tradition and declared that 'the common people deserved to know more about their own life conditions in order to defend their interests' (Fals Borda, 2006: 29). Reciprocity and an empathic attitude towards others (*vivencia*) joined with a liberationist intent prepared to challenge the inequities that accompanied capitalism. These two impulses were to be balanced in turn by *phronesis*, 'wise judgment and prudence .... [that] should furnish serenity in participatory political processes' (Fals Borda, 2006: 32). For the researcher who chooses not just to observe but to participate in communities or organisations, serenity is often in short supply. Effectiveness is a function of intention supported by capacity, and Park (2006) argues that participatory action research requires three capacities: skills of inquiry, to understand meanings and causes of problematic situations; mobilisation of the community of practice to understand practice in context; and organisation of that community as a vehicle for action. My reflection here centres on the mobilisation of a community of practice that can both inquire and organise action. These are practices of *facilitating with activist intent*.

*Embracing complaint* and *weaving theory from experience* are practices that maintained the inquiry of others in the midst of a tumult of voices, and fitted my role as the facilitator, focused on the *process* of interaction in a group. As 'a committed participant and learner in the process of research' (Rahman, 2006: 51, quoting Hall, 1997), what part could my own critical analysis and proposals for action play? I brought to the research a passion for improving governance from the inside out. I wanted collaborative decision-making, sustained engagement between program managers, technical specialists and community members, and deliberation about the future of rural landscapes. How could my own opinions be deployed so that my distinctive social status, formal education and positional power (Gaventa and Cornwall, 2008; Lykes and Mallona, 2008) contributed to and did not displace my co-researchers' inquiry?

In Chapter 4, I described two actions to manage such risks: I made a clear and public distinction between the purposes of the peer groups, the Readiness Project and the doctoral research; and, in an effort to make the Project's activities as transparent as possible, I broadcast everything. Beyond that, I began in the same place of frustrated aspiration as my co-researchers. I wanted to improve governance, but I did not know *how* to. I negotiated the peer groups as a space for inquiry, and began facilitating. Then, as the research progressed, my activist intent found its way into my facilitation in three ways: giving my opinion, making my roles as consultant visible, and making policy personal.

#### Giving my opinion

In the second session of the first peer group, participants agreed to present the development task chosen by their Network management. In setting up this activity, I had suggested their presentations might usefully include their Network's long-term goals and how the development task connected to long-term trends in the NRM system and the interests of other stakeholders. Participants took up none of these suggestions. Instead, they presented what amounted to a project plan for their development task, with little strategic thinking evident. I was surprised. Perhaps their first presentations were 'clearing the decks' for later strategic thinking; perhaps they lacked the tools to analyse the wider NRM system for leverage points; or perhaps they viewed the wider NRM system as a constraint to be ignored while they got on with the job of organising projects. How should I respond to what seemed a profound lack in their approach to Network development?

I wrote an email to the peer group with my observations and reflections. As I warmed to the systemic patterns, I added observations from my recent experience: that the previous State Landcare Coordinator had found the role so weighted down with administrative tasks that he had left in frustration; that the head of the Farming Systems and Landscapes program at the Department of Primary Industries could not find a Landcare Network to express a view on priorities for her \$6m research and development program; that DSE

guidelines for Multiple Outcome Projects did not mention Landcare Networks as a stakeholder; that DSE and DPI policy staff I spoke with about the Readiness Project were intrigued to hear what Landcare Networks were doing at landscape scale, but none asked to speak directly with them. I raised a tentative hypothesis:

Landcare Networks, NRM regional managers and NRM policy and funders all position Landcare as stewards, not strategists. Stewards do the work on-ground, managers manage the machinery of funding and planning, policy funders create the NRM system. What's more, most participants in the NRM system view the business they are in as landscape repair, not landscape redesign. The goal is to make current land use work better, not to question it and change it. (*Why Networks aren't strategic*, email, 19/01/2007)

I considered toning down my email, but decided that if people thought me wrong they would say so, and if they thought this kind of inquiry inappropriate, we could discuss what kind of inquiry *would* enable Landcare Networks to become more effective and more influential in landscape change. The next session saw a vigorous discussion. The group's focus widened from plans for incremental development of Network capacities to a public questioning of Landcare's place in the NRM system, which continued through the sessions alongside work on each Network's specific development task. The email marked a threshold. In setting up the Readiness Project, I had countered the sponsor's request for measurement of Network capacity with a design I thought would help to change Networks' place in NRM. This more activist stance was extended here into interaction with my co-researchers.

The device of an email between sessions turned out to be an effective way to express my opinions without taking over group discussion. I could demonstrate the process of critical reflection, put together elements from the previous session in a way that built on and extended critique in the group, and challenge views I thought were limiting inquiry. I sent ten such emails, sometimes as my own reflection on critical moments, as in the

instance above, and at others times drawing together the critique emerging, as in a two-pager on *Being clear about your philosophy*, based on views in the second peer group:

When money is harder to get, there's a need and an opportunity to look hard in two directions: *into the future*, to what lies ahead in terms of needs in your area and NRM policy and funding: but also *into your philosophy*. Your philosophy is your understanding of how change comes about, and your values about how change *should* be achieved. Those commitments then shape the position your Network takes in the NRM system. (*Being clear about your philosophy*, email, 03/08/2007)

I sometimes advanced a thesis. For example, in *A Fork in the Road*, I set out the choices I believed Landcare faced in the NRM planning system. In *Making policy by exchanging documents is crazy!*, I took to task the consultation for a state government policy paper on land and biodiversity, which had effectively closed access to DSE policy staff, except through written submissions:

Good policy development finds, creates and negotiates the ideas to which diverse parties can commit despite their differing interests and perspectives. Strong ideas bridge differences. But the process of finding such ideas depends on time *talking* with others, where what others think and want can be expounded, questioned, challenged and slowly understood. You can't do this through an exchange of documents. (*Making policy by exchanging documents is crazy!* email, 28/06/2007)

I also sent emails (six in all) that brought in literature I was reading, when this seemed relevant to discussion in the peer groups. For example, completing an early report on barriers and drivers of Landcare Network participation in NRM governance, I was struck by the similarities with research I was reading on effective environmental governance (Olsson et al., 2004a; Ribot and Larson, 2005; Lebel et al., 2006). I laid out these findings for my co-researchers. As the second peer group began to think about connecting to DSE policy staff, I summarised Sabatier's ideas on policy subsystems and beliefs (Sabatier, 1998), and the idea of shadow networks (Gunderson et al., 1995b).



We rarely talked directly about these 'literature' emails in sessions, but their effect was to demonstrate that the issues being raised in the peer groups were issues in other governance systems. Participant feedback was that, when they had time to read these emails, they kept them thinking on matters we had talked about but which they had less time for when they went back to work. The risk that peer group inquiry would be skewed towards my own interests was reduced by my limiting exposition of my opinions to emails, not face-to-face interaction, where the opinions of my co-researchers dominated. My contributions were also directed towards opening a critical stance, and did not advance a specific agenda for relationships in the NRM system. My co-researchers also brought to the peer groups a robust collegiality I had found absent in organisations dominated by command-and-control cultures. Once I had weathered their suspicions of me as an agent of some covert government agenda, this collegiality was extended to me, allowing me to express my views without displacing theirs.

#### Making my role as consultant visible

The offer of time to talk and work with peers was regarded first with suspicion, then happily taken up, but I wanted my co-researchers to remain mindful of the provisional and negotiated character of the inquiry space. I also wanted them to begin to see governance systems from multiple perspectives, not just their own. My tactic here was to make visible what I was doing as consultant to the Readiness Project, relating to participants as fellow practitioners within the NRM system. In those parts of sessions where my co-researchers discussed their development tasks, I reported progress in maintaining the Readiness Project and building its influence. I set out the thinking behind what I was doing and sought feedback on difficulties and choices I faced.

For example, I had decided to attempt to connect the Project early to DSE decision-makers. In the peer group, I described my history of innovation at the periphery and my failure to influence the centre. Perhaps building relationships between the Project and senior management early in the life of the Project would make it more likely its results would be

translated into mainstream business and continue when the Project finished. By the sixth session, I was wondering if this strategy was sufficient. My co-researchers were showing how difficult it was for Landcare Network management committees to hold onto a strategic view for their Network. I began to wonder whether a 'connect broad and diverse' strategy was needed, where Landcare staff and leaders talked more with leaders of other interests in rural communities. Perhaps this would strengthen their long-term view of Landcare in rural communities. My co-researchers' feedback was clear: members of committees of management had enough on their plate already, and in any case, their multi-membership on other committees already connected them to other leaders.

Such discussions provided me with a measure of collegial support. Each of my field trips to facilitate peer group sessions included discussion with my project manager and other policy staff in DSE, and travel across country Victoria through the very communities we were discussing in the peer groups. I slept in country motels, talked to shop assistants as I bought my lunch, saw the countryside change through the seasons, listened to regional radio as I drove. I turned over in my mind what was preoccupying policy staff and compared this with the issues emerging in the peer groups. I found myself wondering over the lack of connection between people at different levels who wanted to improve governance.

Describing the facilitator as the linking thread of an inquiry, Burns (2007: 83) observes that 'when the action research facilitator is at the hub of their inquiry, rather than neutral to it, then almost by definition different pieces of their inquiry become connected...'. Talking in the peer groups about my role as consultant to the Project helped me make those connections. As the peer groups stretched beyond established theories of action and frames, my inquiry and that of my co-researchers aligned more explicitly. We worked in our own spheres of influence, but a shared feeling for our situation supported our meaning-making, allowing us to borrow insights and possibilities from each other. Pieces of our shared inquiry became connected.

## Making policy personal

Using peer groups was one of the strategies of the Readiness Project; the other was to somehow connect Landcare Networks and policy staff. I gave some policy staff a better understanding of Landcare Networks by reporting what was emerging in the peer groups. My co-researchers, however, viewed policy as a waste of time. They had little experience 'reading' policy and few connections to people working at state level. If they tuned in more to the world of policy, lines of influence might open.

Whenever the flow of my co-researchers' discussion intersected with policy, I tested their understanding of the substance of the relevant policies. To fill gaps in understanding, I put together information on policies, using material in the public domain and selecting ideas that would catch the attention of participants – what were the one or two things of immediate interest to Landcare Networks? I introduced market-based instruments, for example, as payment that could reward landholders who delivered public good outcomes voluntarily, and that could reduce the threshold to action for those landholders for whom the cost of conservation practices was a strong barrier to adoption.

I had the benefit of time to source material, an understanding of how my target audience participants thought and operated, and a relationship with participants that was oriented to inquiry and action. I also brought an activist intent. I was alert to opportunities in the policy domain and in the peer groups; when I found an alignment, I argued for Landcare Networks to pay attention to policy. In an email on Landcare Stewardship, for example, my cover note said this:

Why bother to look into these documents? A commitment by government in the Green Paper to land stewardship could create an opening for Landcare to be more involved in planning at landscape scale. At present, it is locked out of planning decisions by CMAs. Land stewardship puts the issue of change in land use systems on the agenda, not just remediation of degradation. On this issue, government can only go as far as the community will accept. .... Landcare Networks can bring knowledge about communities and credibility as a facilitator of community

opinion, but they probably won't be asked to unless they demand to be included.  
(Email, 07/10/07)

I hand-crafted a directory of DSE policy areas relevant to Landcare, cut-and-pasting goals from Branch action plans, naming names, and giving phone numbers and email addresses. These three pages did as much as anything to make the policy domain a world of real people, with specific agendas, accessible to Landcare Networks. When discussion touched on policy, I turned to the directory to locate the responsible policy staff, suggesting what interest they might have in what Landcare Networks were doing. This triggered several new relationships. A Network developing systems to accredit conservation farming practices made a connection with policy staff developing markets for ecosystem services. Both parties saw benefits in using the others' expertise and they developed a strong relationship:

PG1/6: We had G\_\_\_\_\_ and M\_\_\_\_\_, the two economists behind the ecosystem services stuff. We took them for a big long drive in the afternoon, and off to see D\_ who is probably one of our more radical community members, and they had a ball, and they continue to rave about it, and when they meet up with him again, you know, they are all sort of solemn, and they're in a meeting, and they see D\_\_\_\_\_, their faces light and they say up: 'G'day mate, how are you going?' Once you develop the relationships with people ...

When policy issues came up in peer group discussion, I talked about what I knew about policy staff and what they were doing. I told stories, passed on gossip, speculated about what might happen next in DSE. My contact with policy staff gave me enough understanding of what was happening to show that policy was not just a world of documents, but a human and tractable process in which people of goodwill did the best they could given time constraints, political expectations and competition with other policy areas. As the peer groups shifted out of complaining and sought more influence, my co-researchers began to engage with the policy world for their own purposes and to see policy development as a human process open to influence.

## Improvising at the boundary

The initial brief for the Readiness Project called for a way to *measure* Landcare Network capacity. The Project Manager accepted my argument that measurement would alienate Networks and leave the problem of building Network capacity untouched. He backed the action research strategy, and the boundary between the Readiness Project and DSE was then managed formally through 'project deliverables,' negotiated each year. These were framed broadly enough to allow myself and the Project Manager to shape Project outputs as opportunities and objections arose.

We talked every few months, more often when choice points arose. For the most part we worked independently: the Project Manager influenced policy staff; I worked with the peer groups. Our status as a research project provided some protection from the productivist culture of government agencies (Boxelaar et al., 2006), in which projects are required to deliver outputs and a project plan designed in advance of investigation of the target situation. This limits responsiveness to circumstances that cannot be predicted at the start of a project, and to learnings generated as a project progresses. [These bizarre expectations are not confined to government agencies: Ospina et al. (2008) report similar demands in action research funded by the Ford Foundation.] For the Readiness Project, it was agreed that reports on progress with development tasks and participants' perceptions of NRM governance would be sufficient to meet accountability to internal funders, leaving the Project Manager and I room to improvise.

By improvisation, I mean action that is *exploratory*, in seeking to better understand the context of action; *responsive*, in paying attention to offers being made while holding to a guiding intent; and *generative*, in offering new ways of interacting with others, which may or may not be taken up. Improvisation figures very little in writing on action research; the index of the Sage Handbook on Action Research (Reason and Bradbury, 2008) makes no mention of improvisation. Action researchers typically describe action as a response to understandings developed through reflection on experience, not action as a response to a

situation. Even in action research supporting innovation in organisations (Johansson and Lindhult, 2008), the tacit assumption is that insights developed from past experience will guide action.

This emphasis on understanding belies the role of improvisation in shaping action research. Describing action research across large social systems, Burns (2007) argues for ‘improvised strategies .... dependent firstly on opening multiple spaces for exploration and action on opportunities as they emerge, and secondly on skillfully weaving them into a coherent narrative’ (Burns, 2007: 41). From theatre improvisation (Johnstone, 1981), Burns draws three principles to guide such multi-stranded research: accepting offers; seeding small interventions into opportunity spaces; and the re-incorporation of what happened before into what happens next, to build a meaning-making narrative (Burns, 2007). Here, I take up the first of these as *incorporating opportunities*, and add another, *incorporating objections*.

#### Incorporating opportunities

Five months after the first peer group began, the Victorian Government initiated a policy review titled *Land and Biodiversity in a Time of Climate Change*. Amongst the many weighty matters included in its scope was the place of ‘community-based NRM’; however improving targeted investment was the central agenda. Competition between policy areas in DSE was intense. Forty staff were busy positioning their issues for government support: biolinks, cross tenure management, management of public land, market-based approaches, investment for multiple outcomes, leveraging carbon offsets, planning for marine and estuarine ecosystems, statewide priorities, climate change, fire management. In the midst of this, Landcare was – to use Kingdon’s analysis of policy formation – a solution looking for a policy problem (Zahariadis, 1999). The Project Manager set out to make it a solution to the problem of getting more value for the NRM dollar. *The role of community, individuals and volunteers* made it to the short list of issues on which position papers were to be prepared, making the case as follows:

Community groups mobilise social effort in the community around them and facilitate the flow of private funding into NRM. They are often the local integration agents that put together the pieces of disparate government projects. They articulate informed opinion, influence local attitudes and drive many forms of innovation. Without these groups it would be extremely difficult, and vastly more expensive, for government to influence, support and coordinate the community to improve land management practices and protect priority natural assets across the State. (Lucas, 2008: 1)

In parallel, the peer groups had been working on the policy review. A member of the first peer group had spotted the opportunity to make sure the Terms of Reference for the policy review included the kinds of issues been raised in the peer group. Why not set up a discussion between Landcare Networks and work up a submission? The Project Manager accepted my argument that this was ‘supporting Landcare Networks becoming more effective and influential in landscape change’. Members of the peer group used their networks to invite other Landcare Networks; the Project Manager invited policy staff (none came). I ran the workshop and wrote up the ensuing submission. Landcare had signaled its capacity to present an opinion, and one consequence was an invitation for a community member of Landcare to join the Stakeholder Reference Group.

Five months later, the release of policy options in a ‘Green Paper’ presented another opportunity. The same participant suggested a workshop where Landcare staff and community members developed a Landcare submission on the Green Paper. If I ran it, his local Landcare group could organise a venue and get people there. The Project Manager was amenable, more so when the senior DSE manager responsible for the policy review agreed to join us for an afternoon. A total of thirty-eight community leaders and staff from thirty-one community organisations and programs across the state convened to critique the Green Paper and write a submission that laid out Landcare’s role in NRM. Landcare was ‘the critical interface between the bureaucratic constraints of government and the diversity of communities,’ a facilitator of ‘collaborative visioning and planning at

a landscape scale... (including) all land tenures and various investors' (Phillip Island Landcare, 2008).

In the ensuing policy commitments in the White Paper, community NRM was affirmed as a mechanism for community education and action. A funding stream for local ecosystem resilience was opened to projects that 'contribute to or maintain community capacity', and a minimum standard promised 'for community engagement for the development of plans and project delivery' (Department of Sustainability and Environment, 2009: 28-30).

Landcare was acknowledged as a governance mechanism with which government planning needed to engage:

... Landcare and other community-based natural resource management groups have become increasingly sophisticated. Many groups have well-established administrative arrangements and strategic, forward-looking programs of action. Recognising the capacity of these groups and better aligning property, group, regional and statewide planning will enable the community and the government to work towards common landscape goals. Local knowledge and participation will be particularly important in flagship areas and biolinks. (Department of Sustainability and Environment, 2009: 63)

Many other opportunities arose during the research. I accepted the second peer group's suggestion that we expand participating Networks to include four other Networks, so as to build the community of practice within western Victoria. I supported members using their own networks to research perceptions of emerging policy issues relevant to Landcare. Peer groups used the Victorian Landcare Forum to present what they were doing to other Networks and community Landcare members.

These opportunities were all unexpected. The relational field of the Project – myself, participating staff and management of Landcare Networks and the Project Manager – took hold of opportunities as they appeared and began organising around them. The Project's focus on understanding NRM governance assured the Project Manager that our excursions into the wider NRM domain would take into account the sensitivities of his



senior managers. Participants' networks drew in people from across the state, and distributed the results back into those networks. The recurrent pattern here was: say yes to the opportunity, begin taking action, then shape the flow of action to realise the possibilities.

#### Incorporating objections

For Johnstone (1981), an objection counters an offer and blocks the flow of improvisation. In maintaining the inquiry space, my response to an objection was to look for the unmet need it expressed, and incorporate that into the Project. As Schön (1983) observed of experienced practitioners, action is always a move toward a solution, but the practitioner stays open to the new information generated by the response to action. The early reorganisation of the agenda for peer groups is an instance: prospective participants said they did not want to waste time on analysis, so I proposed that development tasks be our starting point, not analysis.

The Project deliberately stayed 'below the radar' for twelve months, to establish a body of work before engaging more widely. As the Project began to be noticed, an objection surfaced from an unexpected source: Regional Landcare Coordinators. RLCs met on a regular basis with the Landcare Unit. Through 2007, they had become angry at what they saw as the failure of staff of the Landcare Unit to consult with them. They thought staff were forcing tasks on them without asking for their views and that new initiatives from the Landcare Unit were not aligned with what RLCs were already doing.

The roll-out of a one-off grants program for landscape level projects pushed them to outright rebellion. The Landcare Unit had taken an offer of funding direct to Landcare Networks rather than through RLCs. Unsure of what funders required, Landcare Networks sought advice from their RLCs, who were poorly briefed and unable to help. RLCs were furious. At the next meeting with RLCs, my presentation on progress in the Readiness Project and proposed outputs for a second year received a frosty hearing. RLCs

refused to accept the outputs. My Project Manager had moved to another policy position and his replacement knew little about the Project. The Project was up for renegotiation.

I set up a half-day meeting between myself, the Project sponsors and RLCs, at which all points of view could be heard. I invited participating Landcare Networks and made sure they understood what was at stake. The Project's sponsors located the Project within policy developments related to landscape level governance – developments RLCs had not previously heard much about. Six participants from three Networks presented what they had been doing and what they were getting out of the Project. I listened closely to the RLCs' concerns. The new outputs negotiated were surprising. The peer group strategy was affirmed, and the research scope was extended into two new areas: an investigation of ways RLCs and Networks could track and influence relevant policy development and case studies of the way Landcare Network planning was connecting to CMA planning processes. The new Project Manager's commitment to knowledge transfer led to an agreement to develop a set of tools drawn from the peer group process. Expressing my reservations about the value of tools unconnected to an inquiry group, I argued that RLCs needed to experience the tools to understand them: this opened the door to three workshops with RLCs.

Objections had been incorporated. The new outputs meant I could now legitimately work with the State Landcare Team, Regional Landcare Coordinators and their CMAs, and maintain a strong research element. The results of that second year of the Project led to a third year of activity, with a new peer group of Landcare Networks and further case studies of the planning processes of Landcare Networks.

### **Improvisation, inquiry and governance**

Chapter 8 advanced five propositions about inquiry within marginalised groups. *Inquiry between peers holds open a space for doubt* that can lead to questioning of established beliefs. *Embracing complaint opens up inquiry* by accessing the information and energy for change

buried in the complaint. *Investigating failure builds critique* by questioning and rebuilding assumptions about goals, critical forces and actions. *Taking responsibility grounds critique in action* as practitioners search for what they can do to change their situation. *Critique can generate new theories of action within current frames, and open new frames* as practitioners find new ways to act on their goals and take on new goals. Two propositions about enabling conditions can now be added:

6. *Facilitating with activist intent provokes and supports inquiry.* The facilitator's activist intent brings passion and rigour to inquiry, challenging co-researchers to examine the causes of failure and their options for action, and connecting the inquiry group to the wider institutional setting.
7. *Improvisation at the boundary maintains the space for inquiry.* Inquiry requires a secure space for discussion between peers, with freedom from the pressure to produce quick answers. Organisational sponsors who can tolerate emergent project design make it possible to maintain the inquiry space and to refine and extend the inquiry in response to opportunities and objections.

Action research and experiential learning are typically conceived as drawing new understandings out of past experience. The practices described in this chapter emerged in part from reflection on past events, but also from willingness to respond in the moment with new action. Improvisation as exploratory, responsive and generative action merits more investigation. Torbert and Taylor (2008) provide one reference point. Drawing on research into levels of inquiry in action, they propose that when attention is held simultaneously on the self, other, and the system formed by self and other, action can emerge unplanned.

Senge et al. (2005) provide another reference point. They describe two different processes of learning: reflection on past experiences, and the 'presencing' of emerging futures. Presencing was developed through the 1990s in work with companies responding to a

globalising economy, a situation of 'generative complexity' where 'the experience that matters most is a subtle, incipient, not-yet-enacted experience of the future' (Senge and Scharmer, 2006: 203). As a process, presencing proceeds from observation of current realities, to stillness in which the provisional nature of ideas about the past and present is embraced, and then to presencing, in which inner knowing is allowed to emerge. This produces immediate action, without planning (Senge et al., 2005).

The steps of presencing reflect something of the way the practices of facilitating with activist intent and improvising at the boundary developed. I did not plan their first expression, though planning shaped their ongoing use in my repertoire. They developed out of awareness of immediate events and the social system with which I was engaged, and with attention to the spaces *between* events, ideas and persons, where nothing yet had formed, but might. The presencing model identifies a silence that apprehends the provisional nature of knowing. My own experience was of attention to a margin of unoccupied territory in the interdependencies between people within which new action could be taken. Holding a firm intention while paying attention to the system allowed for new action to emerge.

If this is how new action can arise, improvisation is also the probing of a situation to discover what it contains, action that seeks to influence without imposing solutions.

Schön captures this well in his account of the action of the experienced professional, who:

... shapes the situation, but in conversation with it, so that his own models and appreciations are also shaped by the situation. .... The action by which he tests his hypothesis is also a move by which he tries to effect a desired change in the situation, and a probe by which he explores it. (Schön, 1983: 151)

More recently, Snowden (2002) has developed a distinction between complex system states where effective action is not known, and states where effective practices are either known or knowable. In the latter, reflection on past experience can deliver knowledge to guide action, but when systems are in complex states 'we cannot sense and respond, but

must probe the space to stimulate pattern understanding or formation, then sense the patterns and respond accordingly' (Snowden, 2002: 107). For the action researchers, uncertainty in complex systems requires improvisation of action.

Improvisation also merits more attention in the field of environmental governance. The idea of blueprint solutions, argues Berkes (2007b), needs to be put aside in favour of a pluralistic framework in which contending interests negotiate. Negotiation between interests plays out not just in deliberation between interests, but as people, frustrated by the limitations in current arrangements, improvise better ways to interact. Possibilities are invented, not only planned. Brunner and Steelman (2005), having made the case for a local politics of environmental decision-making, propose no grand blueprints, but suggest that the improvisation of new arrangements between local agency staff and the communities they serve can gradually transform governance.

The wider governance literature offers two starting points for examining the role of improvisation in transformation of governance. Research that has established learning and creativity as outcomes of dialogue in collaborative forums (Innes and Booher, 2003), invites investigation of improvisation as a process that connects the talk in collaborative forums with action in organisational networks. For instance, double loop learning is understood to rework assumptions behind current behaviours and institutional arrangements, but improvisation of action is as much a part of that learning as reflection on experience. The second starting point is Healey's (2006) framing of changes in governance as a process of institutional adaptation and her case studies of innovation in urban governance (Coaffee and Healey, 2003; Healey et al., 2003). These suggest the boundary between innovative projects and their surrounding governance processes as one place to investigate improvisation.

The current research has identified that inquiry within a governance regime involves moments when action develops without a plan, and that research can extend its scope by

incorporating opportunities and objections as they appear. The assumption that only thought leads to action is part of the orthodoxy of science, and of research into governance regimes: a better appreciation of improvisation might allow more play for unplanned action in improving governance.

## Chapter 10 Conclusions and implications

The research investigated Landcare Networks as community-based network form of governance within a multilevel governance regime. Taking up the proposition that ‘governing structures can only be understood through the beliefs and actions of individuals’ (Rhodes, 2000: 85), the heart of the research has been an inquiry with Landcare Network staff and members of committees of management into how they could become more effective and influential within the NRM governance regime of Victoria, Australia. Using a process of participatory action research, that inquiry generated a critique of the governance regime and the marginalisation of Landcare, then progressed to questioning and reworking assumptions to the point where new frames began to develop.

A progression through three cycles of inquiry has produced findings in response to questions that arose in what I have called the core action research. In interaction with this, the thesis research has identified relevant understandings and questions in the literature on governance, environmental management and governance in social-ecological systems (Table 1.2). In this chapter, I consider the significance of the findings for governance in social-ecological systems. I also discuss limitations in the research methods, and set out implications for further research and for practice within environmental governance regimes.

### **What influence can community-based network forms of governance have on governance regimes?**

The critique of the failure of collaboration between Landcare Networks and CMAs (Figure 5.1 page 115) mirrors the observation in many other environmental governance regimes of superordinate levels limiting the ability of subordinate levels to pursue their priorities and apply their knowledge, resources and influence (Young, 2002a; Ribot and Larson, 2005; Young, 2006a). The critique is also congruent with Australian research that finds the NRM governance regime preoccupied with accountability upwards to government (Wallington

and Lawrence, 2008; Davidson and Lockwood, 2009), using structures for integration at the expense of processes for integration, such as engagement, role clarity, agenda-setting, capacity building and collaboration (Morrison and Lane, 2005). State and national levels maintain control of resources, information and the policy agenda to the point where community participation is experienced as the local administration of government agendas, of 'decisions made elsewhere' (Marshall, 2007: 7).

Levels of governance govern differently, each level specialising in issues, knowledge and policy tools (Young, 2006a), and collaborating when necessary with other levels. The regionalisation of decision-making in NRM in Australia, which began in earnest in 2000, has failed to engage Landcare Networks as decision-makers at landscape level; Landcare Networks are positioned as implementers of regional level decisions. Sobels' predictions at the dawn of the era of targeted investment have proved prescient—neglect of community action 'degrades the relationships inherent in autonomous groups and leads to a more regulatory, top-down government intervention' (Sobels, 2006: 297). The failure to draw Landcare into the business of governance has other implications. Governance arrangements that do not use representative democratic structures rely for much of their legitimacy on the quality of their deliberative processes (Pellizzoni, 2004). The findings suggest that regional governance arrangements in Victoria are neither inclusive nor public enough to earn such legitimacy. They confirm the claim by Wallington and Lawrence (2008: 278) that the focus on accountability to government 'is not sufficient to generate the kind of shared responsibility for environmental planning sought by Australian governments'.

The policy of targeted investment, in which NRM funding, technical expertise and program delivery are directed toward specific threats to particular assets, has reduced funding for community participation on NRM activity. Landcare Networks have been unable to counter this policy shift away from broad community participation. Dependent on government funding, with little experience in seeking out and lobbying influential



people on policy issues, and isolated from discursive engagement with higher levels of governance because of a paucity of bridging mechanisms between levels, Landcare Network staff, management and members have been drawn into a narrative of dispossession and failed to confront their own failure to influence. A new storyline for Landcare, sufficient to operate alongside that of targeted investment, has yet to be devised.

One analysis has viewed Landcare as complicit in governing-at-a-distance, in which individuals and civic society take responsibility for the environmental consequences of an agro-industrial system that government chooses not to constrain (Martin and Ritchie, 1999; Lockie, 2000; Higgins and Lockie, 2002; Lockie, 2004). Landcare groups have worked within government planning processes and have not sought to change established political relationships and policies (Wilson 2004). On this, the findings of the current research are equivocal. The reframing developed in the peer groups of the Readiness Project show staff and management committees of Landcare Networks responding to marginalisation by beginning to understand and challenge NRM policy.

However, Landcare Networks are not yet sites for 'substantial changes in state-society relations' (Considine, 2006: 18). They are sites for *local* innovation in governance, but their staff and community leaders do not often participate as equals with staff at higher levels in problematising and innovating in governance. The peer group critique is based not on an appeal to the democratic rights of citizens to participate in decisions that affect them, but on a belief in the capacity of community members to develop better land management practices and repair landscapes. Community is understood as a field of differing interests which can be aligned, not a field of competing interests in which power in relationships affects whose problems and needs are given attention. Landcare Network staff or management committees do not question, as Walker et al. (2009) do in their analysis of Victoria's Goulburn-Broken catchment, *which* community interests are supported by government funding and management.

What Landcare Networks do *well* is to govern in a way that supports adaptive capacity within the social-ecological system from property to locality to landscape level. Their staff and committees of management value social processes of learning, not just to the cognitive processes of individuals (Ison et al., 2000). Landcare Networks support change within communities of practice, target change at points of readiness in the social-ecological system, and cultivate bridging structures and bracing relationships to hold commitments to action. This practice applies a rational choice theory (*The Enterprising Landholder*) focused on individual landholders, and a norm-oriented social theory (*We're All in This Together*) in which learning and collective action by groups develops new norms of practice, to support a super-ordinate theory of action I name *The Momentum of Change*, in which the primary goal is to maintain the momentum of change across the social-ecological system.

Analysis of decision-making by management committees of Networks confirms Landcare Networks as a form of network governance. Deliberative decision-making allows debate between local interests and between progressive and conservative views of Landcare and rural landscapes. Demand for short-term results is tempered by community members with long memories and commitment to place, who ground decisions in the slow variables of ecosystem and community change. As Network staff and management pursue their priorities, they initiate new directions in their communities, but are willing to wait if the timing is not right—in their words, to let things evolve. This approach to governance is theorised as a distinctive discourse (Dryzek, 1988; Hajer, 1995) in which the driving forces for change in landscapes are individuals and their association within communities of place and interest, motivated by mutual responsibility for the environment. The discourse embodied in government programs locates agency differently: the initiatives of government, guided by science and policy, are the prime mover of change in landscapes. Participants in this research challenge this approach as

too narrow to achieve sustained change in landscapes, and assert that those who live and work in a landscape are a potent force for change.

These findings complement research on co-management structures in communities dependent on harvest of wildlife resources from ecosystems (Armitage et al., 2007). They show how facilitation of local innovation at many points across a social-ecological system can be integrated within a community-based governance structure. The ‘dynamic, on-going, self-organised process of learning-by-doing’ at work in community-based governance (Folke et al., 2002: 20) finds expression in governance practice that cultivate relationships of mutual responsibility. The possibility of governance structures that can be shaped by learning (Berkes, 2007a) is moved out of the interest group mediation associated with Lee’s (1995) adaptive management, into the wider social-ecological system, where readiness for change is sensed across communities of practice.

In using action within relationships of mutual responsibility as the catalyst for change and putting planning in service to that action, Landcare Networks are pursuing an unusual path. There is an assumption in much environmental management – either as expert-led top-down management, or as adaptive management (Walters and Holling, 1990; Lee, 1993) or even as deliberative negotiation between interests (Innes and Booher, 2005) – that planning leads action. Decision-making may draw in local knowledge, but the directions emergent within the action of communities are not so explicitly engaged. Lee, an eloquent advocate for social learning in environmental management, still presents this learning as linking ‘central perception to decentralised action’ (Lee, 1995: 231). This leaves the modernist project intact: knowledge and centralised direction will bring order and guidance to the deaf and dumb world of action (Wagenaar and Cook, 2005).

Research on adaptive governance loosens the overvaluing of centralised direction by observing that social networks and polycentric structures often initiate change. However, at least in its publications, that research holds onto knowledge as the progenitor of

change: networks enable knowledge to be drawn together from across the social-ecological system to create solutions to environmental problems (Olsson et al., 2007). The valuing of action within Landcare Networks taps a relationship between knowledge and action found in the concept of *practice*. Practice generates knowledge through a purposeful and moral engagement with the world. Practical reason stands alongside scientific reason, with its own standards of knowing: more know-how than know-that, interpretative rather than objective (Polanyi, 1973; Heron, 1996). Feeling has a place too, for in practice, emotion is integral to perception and valuing to action (Wagenaar and Cook, 2005). Rather than using planning as the primary catalyst for change, the governance of Landcare Networks generates knowledge, direction and commitment through action within relationships of mutual responsibility.

The self-organising of action by persons and organisations with relationships of mutual responsibility within the agricultural landscapes of an industrialised Western democracy provides another model of the way the polycentric, nested governance regimes advocated by scholars (Ostrom, 1999b; Berkes, 2002; Dietz et al., 2003) can develop from the bottom up. Landcare Networks are generating an alternative to the instrumental use of the community associated with an early 21<sup>st</sup> Century strain of scientific management, politically risk-averse and hopeful of technocratic solutions to social dilemmas. The cry 'They just don't get it!' is a claim on the rationality of action negotiated in relationships of mutual responsibility. It is also evidence of the difficulty of shifting from the powerlessness of complaint to the greater vulnerability of reflexive critique. About this, the research brings significant findings.

### **How does reframing develop within a governance regime?**

Shared investigation of their position in the NRM governance regime led peer groups of Landcare Network staff and members of committees of management to change some of their ideas about Landcare. Doubt in the belief of Landcare as a partnership between community and government punctured the long-established frame of local action on local

problems and prompted greater advocacy and activism. The local action frame assumed a governance regime fundamentally supportive of Landcare; an emerging frame accepted the value of local action, but embraced the need to create policy and political support. These changes were enabled by inquiry between practitioners, in a time and space created for inquiry, using methods for inquiry in action. Embracing complaint but disrupting a pattern of complaining led to investigation of participants' failure to change their marginalised status, and to their taking responsibility to change their situation. They produced a critique of the failure of collaboration that included their participation in marginalisation.

This confirms the role of doubt and failure in reframing identified by Laws and Rein (2005), and adds a model of how practitioners move from doubt to reframing. Persistent failure to achieve goals pushes any practitioner to reopen questions that have previously been settled: why don't actions produce the desired outcome? Failure increases doubt and drives inquiry. The development of critique went hand in hand with a search for more adequate theories of action, and new frames within which participants could legitimately act to change their marginalised situation. Laws and Rein approached their research on toxic waste disposal from a public policy background, but the concept of reframing has not often been used in the literature on governance in social-ecological systems. The findings highlight two aspects of reframing relevant to research into change in environmental governance.

First, communities of practice are one vehicle for change in governance. Communities of practice are places where social practice and social identity are made and remade day-by-day, as Wenger puts it, through 'continuous interaction, the gradual achievement, the constant give-and-take' (Wenger, 1998: 53). They do not simply organise the competencies and knowledge required to put new goals into action: actors within their communities of practice invent new action, and in those actions, create new frames. The processes by which bridging organisations and shadow networks influence governance regimes might

be illuminated by examining whether and how they operate as communities of practice, as might those processes of co-management arrangements to which Carlsson and Berkes (2005) have called for attention.

Second, the findings suggest that reframing proceeds not only by the high road of vision, but by the lower, muddier road of failure and doubt. The close coupling between ecosystem crises and their managers is one provocation for institutional learning and renewal (Gunderson and Holling, 2002). For Landcare Networks, the provocation has arisen not from ecosystems but from the governance regime, through repeated failure to reverse marginalisation. Failure is painful and difficult to look at: it is easier to blame others or to retreat to helplessness than to investigate it. Complaint, however, can lead to inquiry, and failure can provide fertile ground for forging new practice:

The scope for reframing is strongest when the ideas, concepts and theories that reframing draws on derive from the experience, understanding and active involvement of actors in concrete social situations. The 'felt needs and experienced.... sufferings of the agents involved' animate the process and ground it in a stubborn persistence that leads, over time, to an increased capability to act effectively (Laws and Rein, 2005: 173, quoting Fay 1976).

In initiating and facilitating a setting for a community of practice to work on what mattered to its members, the current research shows just how 'felt needs and experienced sufferings' can animate action and understanding, changing practice. Just how such inquiry can be undertaken is the final area of knowledge to which the research makes a contribution.

### **What facilitates inquiry into governance by actors in a governance regime?**

Governance institutions embody assumptions about how to govern. That these can become accessible to actors when they strike significant difficulties in their interactions with others is a premise in the literatures of adaptive governance (Folke and Berkes, 2003; Folke et al., 2005), social learning in agriculture and natural resource management

(Kilpatrick et al., 1998; Jiggins and Roling, 2000; Bawden, 2005), and organisational change (Argyris and Schön, 1996). The reframing that emerged with the methods used in the current research confirm this possibility, and my reflection on facilitation and maintenance of the inquiry within its organisational setting highlight practices that enable investigation and action within the constraints of a governance regime in real time.

*Facilitating with activist intent* invigorated inquiry into the governance regime through a robust collegiality between persons who all had to live with the same system, and through injection of the considered findings of research into governance regimes. *Improvising at the boundary* between the inquiry space and its organisational setting presents a suite of tasks that often go unmentioned in research reports, but which are critical to getting close to the life of governance regimes as actors themselves experience it. At critical points, the form and direction of the inquiry were not planned but improvised in response to opportunities and constraints in the organisational setting.

The peer groups of the Readiness Project were not made up of differing interests (a limitation which I comment on shortly), but they did show how a community of practitioners can be engaged in designing action to improve adaptive capacity. Two elements of participatory action research methodology are worth emphasising here. Firstly, the methodology allowed practice to be problematised and explored *within a community of practice*. Participants entered but moved through confessional and melodramatic narratives of decline and redemption to their point where they understood their marginalised position in their own terms, and took more responsibility for that position. Doubt and failure triggered reframing within a community of practice. 'Community of practice' does not here denote a collection of practitioners conveniently assembled for the purposes of research, but as Wenger (1998) has pointed out, communities with relationships with an on-going life outside a research project, in which practice is created, contested, confirmed and reworked. These communities organise themselves around concerns other than those of the hierarchies which employ

practitioners. If they are less tangible than organisations, they are as consequential for governance practice, offering a social structure through which researchers can engage with governance regimes.

Secondly, I chose a methodology and methods I judged would engage the people I wanted to work with, then found myself in the middle of what Kemmis (2008), drawing on Habermas' theory of communicative action, calls *boundary crises*. These are tensions at the boundary between *lifeworld*, where deliberation between persons is the basis for meaning and action, and *system*, where instrumental rationality is the basis for decision-making (Kemmis, 2006). Staff and management of Landcare Networks understood themselves as situated at the boundary crisis of *place*: how will people collaborate in caring for the place in which they live? Both system and lifeworld can contribute to that collaboration: the proper relationship between the two argued out in the peer groups.

The research created the public sphere Habermas argues for, where persons informally and as equals can raise questions about their social setting, test their views against each other and arrive at agreements (Kemmis, 2008). Beyond this, it allowed members of a community of practice to mobilise the commitment to change dominant systems. This is not simply a matter of knowledge but of 'conviction in the knower, and the courage to go with it ...' (Park, 1999: 148). The methodology nurtured those commitments, but they arose in the midst of the boundary crisis. Hindsight suggests that researchers wishing to engage with insiders in research into governance regimes might do well to sense out possible boundary crises in their research area.

### **Limitations of the research methods**

Five aspects of the research methods are considered: the research investigated the NRM system from a single perspective only; peer group discussion was the only means by which data were gathered; my role as facilitator had potential to influence the perceptions of participants; the concept of levels of governance misses diversity in relationships



between levels; and, the short time span of the research did not address longer term processes of change in governance regimes. I describe the risks associated with each and what I did to limit impacts on the trustworthiness of findings.

Working with staff and management of Landcare Networks created an environment where they could examine their practice in the NRM system, but did not bring in the views of other participants in NRM. For instance, the critique of Landcare's relationship with CMAs was not tested against CMA staff, whose perceptions might well have challenged views in the peer groups. Boxelaar (2004), observing a loss of diversity in a research and development project that began with a mix of industry, community and agency participants, makes the case for diversity as a way to differentiate understandings and stimulate innovation. The communities of practice that constellate around an issue, practice or landscape need to be expanded.

A stronger design would have created an inquiry group made up of Landcare and CMA staff and management, or a group of Landcare and policy staff. At the time the research was designed, such proposals were either unlikely to win the support of CMAs or would have taken a long time to put in place. The limited window of opportunity for funding from the Landcare Unit budget worked against attempting this. Alternatively, I could have gathered CMA perceptions independently and brought these into the peer group sessions. However, in the same way that the early views of Landcare Network participants concentrated on limitations in the behaviour of CMAs and state policy staff, CMA staff would likely have the same bias on first encounter. Presenting Landcare Network views to CMA staff for their response was another option, but one likely to trigger defensiveness.

Given the failure of collaboration between levels identified in the research, a better design would have been a shared inquiry between Landcare Network and CMA staff. However, that is better understood as the *next* design, an evolution that responds to the issues

discovered in the first design. In that first design, I secured relevant diversity by inviting Landcare Networks with significant differences in their management arrangements and social landscapes. My facilitation also deliberately sought exceptions to areas of agreement, and explanations as to differences of view. One test of diversity is the extent to which initial differences of opinion continue throughout an inquiry: were participants perhaps happily agreeing with each other, at the expense of their differences? The gradual agreement that Landcare Networks needed to act to challenge marginalisation still left differences in how radically participants thought they needed to act – either to strengthen their advocacy, or become activist.

A related limitation is that the data consisted of what was said in peer group discussion, with little observation beyond the peer groups. The research only sought to understand participants' perceptions, however the findings would have been strengthened by direct observation. For example, the use of journals by participants to capture situations encountered between sessions would have guarded against unfounded assertions and selective memory. This would have been at the outer limits of what I could ask of participants, but I regret not having proposed it. Observations by pairs of participants was another possibility, allowing comparison of observations – for example, of meetings with CMAs or of Network management committees. I observed management committee meetings as I negotiated Network participation in the research, and went to several other management meetings at the invitation of participants, but this could have provided more data on decision-making.

A third challenge to the trustworthiness of the findings is that as a facilitator with activist intent, I influenced the views of participants. Did this lead them to conclusions they would not otherwise have reached? My co-researchers' feedback on my role was that while my opinions accelerated the development of their critique, they did not change the substance of the critique. In Chapter 9, I described measures that reduced the risk of undue influence and I reiterate these here. I was activist without taking a firm position on

how governance should be improved, other than by inquiry and action. I put participants in charge of the agenda: this was the basis on which they joined the peer groups, and the basis on which they stayed. If they had thought I was pushing an agenda, they would have told me to stop, left the sessions themselves, or asked me to leave. I presented new views *between* sessions, rather than in the heat of a session, and did not give my views often. Participants had substantial experience against which to test any views I ventured, and I invited challenge by tabling the evidence on which my views were based. Participants did challenge me.

A fourth limitation in the research is that the concept of levels of governance, which became a primary organiser in the peer group critique and my further analysis, draws attention away from relationships within levels and between levels. Marginalisation fed the notion of difference between levels. That in turn led to the differentiation of discourses, a relevant distinction in my view. However, levels are not homogeneous, nor do they face off against each other in gladiatorial combat. For example, different government programs managed at regional level compete and collaborate with each other, not just with community organisations; the shifting alliances between programs and community organisations such as Landcare Networks are attempts by competing programs to secure their survival. In a similar way, while Landcare Networks are a dominant organisation at landscape level, they too compete and collaborate with other organisations, such as 'Friends of' groups, local government programs and environmental services businesses.

In retrospect, the inquiry gave less attention than it have might to the complex interface between levels of governance. The role of bracing relationships was noted in Chapter 7, and case studies of Landcare Network partnerships with government programs were used to augment analysis of Network decision-making in Chapter 8. However, analysis of networks between regional and landscape levels would be useful, and actor-network analysis (Law and Hassard, 1999) might throw light on the ways the storylines of targeted

investment and community action have developed and are maintained within respective networks of persons, policies, technologies and environmental problems. These are possibilities revealed during the research and are limitations only because of its necessarily limited scope; these too might be useful in the next design.

This touches a final limitation: the short time span of the research. Analysis of peer group discussion was set in the context of long-term development of the NRM system, but it is still a snapshot of the state of relationships in the governance system. Research over a decade would track the reframing developing amongst Landcare Networks, to observe its progress and the impact on relationships in the governance system. Given the potential contribution of governance supportive of self-organisation, that would be a valuable project, one of several I now propose.

### **Implications for further research**

The current research suggests further inquiry in four areas. Closer examination of how the concept of readiness for change is applied in Landcare Networks would inform understandings of self-organisation. Understanding of the roles of networks, network forms of governance and communities of practice in reframing would throw light on change in multilevel governance regimes. The processes of reframing identified here raise the complementary question of how social identities focused on change in governance develop. Finally, how do actors marginalised by a dominant discourse recognise and use opportunities to change their relationships with different parts of a multilevel regime?

#### **Understanding readiness for change**

A major issue highlighted by this research has been the difference between biophysical goals set at regional, state and national level in what is presumed to be the public interest, and goals held by various communities at landscape level. Understanding how Landcare Network staff and management bridge these two different arenas would be of value to government planners and programs who want to keep communities of place and interest

engaged with their agenda. The concept of readiness for change is one way to approach this: it accepts goals for the wider public good, but values responsiveness to local social conditions and community decision-making.

How do Landcare Network staff and management committees make judgments about readiness for change within communities of practice across the social-ecological system? What knowledge do they draw on? How do they characterise the forces driving and constraining change? Two elements are likely to be willingness and capacity to participate in collaborative activity, either with other individuals, or with other groups and organisations; and assessment of the how supportive the surrounding social context is likely to be. Plummer's (2009) synthesis of the variables affecting adaptive co-management, and the preconditions for collaborative planning (Innes and Booher, 2003) offer elements that might well be in play in here.

A related matter is the way Landcare Network staff and management committees resolve differences between community readiness and biophysical priorities. When a biophysical issue needs urgent attention but people are not ready to act, what do Landcare Network staff and management do? Do they sometimes act despite local unreadiness, hoping to activate community interest as an issue draws more local attention? The current research found them prepared to initiate, but ready to back off if a community was not interested. How does that initiation play out? How, for example, do they use science and community investigation of biophysical problems, a tactic found to increase community interest (Flitcroft et al., 2009)? How do their practices compare with those of facilitators in other environmental governance systems (for example, those described by Blann et al., 2003)? How do they explain and negotiate community unreadiness to staff of government programs who want action on a biophysical problem?

## The process of reframing

Laws and Rein (2005) describe reframing within networks of people interested in toxic waste sites, which suggests the influence of what others have called *shadow networks* (Olsson et al., 2006), networks that link those with an interest in change in different occupations and at different levels of a multilevel regime. I have located reframing within a *community of practice*, where a commitment to a shared practice of community action supports the creation of more effective practice and in the process, new frames. *Network forms of governance* enable interests to create new solutions and to frame new problems. How does reframing take place in each of these settings, and how do these settings influence each other in the process of reframing?

For example, do the long periods of relationship-building observed in co-management (Olsson et al., 2004b; Olsson et al., 2007) lead to alternative approaches to currently defined problems, or to apprehending different problems? It may be that bridging organisations (Folke et al., 2005; Olsson et al., 2007; Berkes, 2009) provide social spaces where reframing takes place, and that shadow networks connect people dissatisfied with current framing of problems and solutions (Olsson et al., 2006). How does reframing operate in a network form of governance such as the bridging organisation described by Olsson et al. (2007)? Here, a municipal organisation enabled interests associated with bird conservation, cultural heritage and water quality to begin to understand and align with each other, while a leader in that organisation acted as a catalyst to produce a new frame of 'water as a valuable resource'. What is the role of communities of practice in such situations?

Network forms of governance draw together different levels of governance (landscape, regional, etc); different functions (policy, research and service delivery, for example); and different disciplines (biology, hydrology, sociology, etc.). It would be useful to make a distinction between networks and communities of practice here, and understand their distinct contributions to reframing. Network governance arenas could then be

approached as what Wenger (1998) would call *boundary spaces*, where different but related communities of practice interact. Two specific questions arise.

Firstly, how does interaction between communities of practice produce shared meaning?

Work by Cash et al. (2003) on interaction between scientists and policy-makers identifies some of the cognitive tools supporting meaning-making; the concept of communities of practice would direct attention to the contribution of joint action in developing shared practices. Secondly, does the intense and sustained interaction in network forms of governance generate a community of practice in its own right? Analysis of collaborative forums that have run over years highlight elements similar to communities of practice.

Innes and Booher (2005), for example identify reciprocity, relationships, learning and creativity as emergent properties of such forums, and shared identities, shared meanings, new heuristics and innovation as adaptations in the associated management systems.

It would also be useful to understand how the reframing taking place in communities of practice, networks, and network forms of governance *interacts* to produce change in policy. At present, we have the broad outline of a phase of preparation during which new frames develop, followed by a window of opportunity in which new frames are adopted by policy makers, then a phase of implementing and stabilising the new frame (Olsson et al., 2006; Biggs et al., 2008). Accounts of these phases could more closely describe the roles of networks, network governance forms and communities of practice within those phases. To bring such questions into focus, research on co-management and adaptive governance could make a sharper distinction between problem solving and problem *making* – the reframing of problems – and between social networks and those dense areas of networks where a commitment to a common practice creates a community of practice.

Social identity and change in governance

Reframing and change in identity go hand in hand. The current research identified conditions that contributed to staff and community leaders reframing their view of

Landcare in the NRM. Their critique of marginalisation supported a search for new action and the beginning of a shift in identity – that is, of themselves as change agents within the governance regime. The research examined this in terms of reframing, not change in identity, but the two are conjoined in the concept of social practice. How does identity focused on changing governance develop?

The diversity of roles that make for resilience in social-ecological systems have been enumerated: knowledge carriers, interpreters and sense makers, stewards and leaders, networkers and facilitators, visionaries and inspirers, innovators and experimenters, entrepreneurs and implementers (Folke and Berkes, 2003). The strategies of policy entrepreneurs in water policy transitions have recently been examined (Huitema and Meijerink, 2010). Case studies provide a picture of what change agents do, but not how they developed their identity as change agents. For example, the account by Olsson et al. (2004b) of the role of a community leader in transforming governance presents a person with an identity as a policy entrepreneur, but does not extend to how that identity developed.

Given the need for reform of governance regimes, it would be useful to understand how people develop an identity focused on change in governance, in public and private sectors. Environmental problems raise questions about governance, and with that, questions for practitioners about their role in governance. For technical specialists trained in the biophysical sciences, addressing governance itself is unfamiliar territory and a substantial widening of their practice. For members of rural communities, criticising government policy is an esteemed pastime, but changing policy requires more than complaint. In the peer groups, supporting community action came to mean being an advocate and for some, an activist within the policy domain.

One conceptual starting point for examining such shifts is Castells' (2004b) distinction between a *legitimising identity*, 'introduced by the dominant institutions of society to



extend and rationalise their domination' (Castells, 2004b: 8), *identities of resistance* to the dominant discourse, in which actors draw a defensive boundary around their practice, and *identities of social transformation*, in which people with a shared set of beliefs and values develop practice intended to transform the dominant discourse and its organising structures.

#### Change in governance relationships

As Carlsson and Berkes (2005) point out, power sharing arrangements in environmental governance are usually the end result of a *process* of interaction between government and community interests. How do marginalised groups make themselves legitimate players in the interaction that precedes new governance structures? Participants in the current research sharpened their critique and moved towards advocacy and activism; however this leaves open the question of how they will disrupt current relationships sufficiently to be seen as necessary participants in decision-making. Longitudinal research is needed, and the social relationships framework of Nkhata et al. (2008) offers one point of reference. In their adaptation of the adaptive cycle of Holling (1995), relationships are conceptualised as moving through a cycle of being opportunistic (Holling's stage of 'exploitation'), collaborative ('conservation'), adversarial ('release'), and tactical ('reorganisation'). Each phase presents particular kinds of opportunity for players to change how they relate to others and to shift their role in governance. It would be useful to understand how actors and organisations recognise changes in the social context that signal a shift to a new phase.

For example, recent policy in Victoria may open the way for collaboration between community NRM organisations and CMAs around the theme of ecosystems resilience. A change of national government in 2007 shifted policy even more strongly to targeted investment, dramatically reducing financial support for Landcare Networks. Complaint, advocacy and activism by Landcare groups and Networks intensified. The Victorian Government White Paper on Landcare and Biodiversity at the end of 2009 offered a

commitment to 'strengthen the landcare model for community natural resource management' (Department of Sustainability and Environment, 2009: 57), with an emphasis on geographic areas associated with government priorities for biodiversity. Commitments were also made to 'planning at a landscape scale using an integrated systems approach' (Department of Sustainability and Environment, 2009: 26).

The NRM system in Victoria may be entering a period of reorganisation. How do staff and committees of management of Landcare Networks maintain an adversarial stance at federal level alongside tactical collaboration at state level? How do they hold their critique of differences in the discourses of government programs and communities, while negotiating with government managers the form of NRM planning at landscape scale? Innovation in governance arrangements, as opposed to improvement in the efficiency of current arrangements, involves understanding and integrating differing discourses, revising previously tacit assumptions. What tactics support hybridisation of discourses at different points in the social relationships framework above? Such challenges move this discussion to the implications of the current research for practice.

### **Implications for practice**

I begin with implications for the NRM system in Victoria, Australia, then for the practice of adaptive governance.

Implications for the NRM system in Victoria, Australia

*Landcare Networks* need to find an alternative to the policy shift away from broad community participation. In Victoria, loss of Australian Government funding for coordinators and facilitators in 2008 led to a drop in Landcare staff positions from 130 to 30 in the space of a year (Newey, 2009). In priority landscapes, projects to change landholder practices and implement conservation works will fit Landcare Networks' strengths, but this leaves Landcare operating within the policy of targeted investment. Newly formed representative bodies of community Landcare members in several states

and at national level have begun advocacy for a more reliable policy on funding of Landcare staff, but these bodies need to do more than simply assert the value of community action. Landcare advocacy needs to respond to Pannell's (2010) challenge that in many situations, properly designed targeted investment delivers greater environmental benefit than broad participation. Is there a storyline Landcare can argue for other than competent provision of the services required by targeted investment? One possibility is community-based land stewardship, in which Landcare Networks sponsor community standard-setting and learning for land management practices relevant to specific landscapes. Integrated this with government or market payment for ecosystems services, this could incorporate the metrics of ecosystem impacts of land management, while working to an evolving suite of locally relevant practices.

Landcare Networks might also benefit from addressing issues *outside* NRM and rural areas that are drawing the attention of industry, community groups and governments. Food systems, for example, are a 'crunch point where climate, energy, water and health agendas collide' (Campbell, 2009: 32). Sustainable systems for energy, water, waste and transport are mobilising new social movements, and urban planners may be ready to accept the limitations of rational and comprehensive planning and engage with communities in design of new systems (Lane, 2005). Alliances around systems that better integrate urban and rural activities might invigorate rural Landcare Networks, but will need what Ernstson (2008: 32) calls 'scale-crossing brokers' to nurture those links. A critical question is whether Landcare members' interest will extend beyond land management and volunteer conservation activity.

*For the NRM system in Victoria*, the research highlights the need for more settings within the fabric of institutional relationships where sectors and levels can come to understand each others' issues, responsibilities and tools; and design and redesign governance to build adaptive capacity. The lack of bridging structures observed in the current research suggests that the strong upward accountability in Australian natural resource

management is leading to contraction in network forms of governance that link government and community. By contrast, in the early years of NRM regionalisation in Australia, Morrison et al. (2004) found that the strategic planning of regional NRM bodies and jurisdictional reorganisation with was only part of the integration story. Formal institutions operated in the presence of many other informal sites of social interaction across public, private and voluntary spheres.

A particular problem for Landcare Networks in initiating and participating in such bridging mechanisms is the likely high transaction costs associated with building trust and reaching agreements. Staff are currently funded to deliver projects, not, as some staff in CMAs are, to plan and to invest time in the interactions around planning. The interface between community groups and government programs seems most likely to be given renewed attention and investment when current government programs conspicuously fail. In the next ten years, crises in landscapes affected by climate change may lead to greater community participation in negotiation of pathways for landscape change. Precipitous decline in the health of ecosystems generally may lead governments to a more aggressive mix of regulation, purchase of ecosystem services and local learning.

Both crises may provoke innovation in governance. Rural landscapes peopled by lifestyle, hobby farmers and farming enterprises hold capacity for sharp, issue-based but discontinuous political activity. Hajer argues that many such actors are “‘politicians on stand-by” for whom one push of a red button is enough for them to become fully engaged in fierce and focused political battle’ (2003: 98). Landcare’s credibility with landholders and local organisations and its familiarity with government NRM puts it in a position to exploit such crises. However, its staff and community leaders must advocate specific alternatives to command-and-control responses to crisis, and equally, alternatives to tokenistic consultation.

## Implications for the practice of adaptive governance

Adaptive governance is a *practice* shared between those committed to creating better ways to govern. I offer several implications for the practice of adaptive governance, drawing on factors associated with resilience in social-ecological systems: combining different types of knowledge; learning to live with change and uncertainty; diversity of individuals, institutions and organisations in governance; and creation of opportunity for self-organisation (Folke and Berkes, 2003; Folke et al., 2005).

The findings highlight the difficulty of challenging the assumption that decisions are best made by government managers, informed by the best science. Limited use of different knowledges seems to go hand-in-hand with a commitment to technical rationality (Crossley and Roberts, 2004). Ends are not a matter of negotiation between plural interests and means are chosen within the short timeframes of government administration. Attempts to improve efficiency lead administrative hierarchies to dispense with the local systems that Low et al. (2003) argue are able to address locally specific conditions and respond rapidly to change—leaving decision-making in the hands of government programs averse to learning (Allan and Curtis, 2005; Stankey et al., 2005).

Neither greater use of local knowledge, nor science that accepts uncertainty, can be counted on to displace the top-down control associated with scientific management. Raymond et al. (2010), for example, propose a shift from knowledge *products* to knowledge integration *processes*, but in practice, these processes are likely to be nested inside problem solving oriented to control rather than to adaptive management. Lee (1993), a strong advocate for plural social interests in adaptive management, observes with some disappointment that the choice of policy options has remained in the hands of a narrow band of technical experts and managers (Lee, 1999). In Australia, Pannell et al. (2009) have argued that more comprehensive analysis of costs and benefits of alternate courses of action—including the use of local knowledge—will improve environmental

outcomes in NRM. However, such analysis takes place within administrative systems removed from public debate about means and ends.

Environmental governance approached as 'management' reduces diversity in governance by excluding plural society from decision-making (Pritchard and Sanderson, 2002; Berkes, 2007b). However, social equity is a central issue in adaptation in social-ecological systems (Nelson et al., 2007). The tension between adapting to current stresses to maintain production while maintaining resilience for future disruptive change has often been resolved in favour of the former (Walker et al., 2009). Without deliberate design of participatory planning, the powerful are better placed to protect their interests while the less powerful bear the brunt of growing vulnerability. This may change as environmental crises affect more people and the efficiency of decisions fails to satisfy stakeholders; for 'many, perhaps most, negotiated agreements are more sensitive to considerations of equity than to the pursuit of cost-effective practices in the use of living resources' (Young, 2006a).

Addressing uncertainty and the lack of diversity in governance systems requires an idea of governance based less on management than on design for future landscapes, within a transparent and participatory political process (Walker et al., 2002). Where evidence-based accountability orients NRM planning to outputs, deliberative processes have the potential to organise action while retaining the capacity to revise these plans as circumstances, understandings and goals change. This is 'accountability in the shadow of the future' that 'aims to understand consequences of action so as to improve action' (Wallington and Lawrence, 2009: 102). Paquet (2007) characterises this as 'intelligent accountability', accountable not just vertically but in many directions, providing feedback that allows adaptation.

Design for futures must also tap the self-organisation of interests, and it is here that Landcare Networks make a significant contribution to adaptive governance. Reliant on

voluntary action, staff and management committees of Landcare Networks use the self-organisation of communities of practice and networks to drive change. Projects are approached not just as a means to deliver outputs efficiently, but as opportunities to build relationships where people share responsibility. Relationships of mutual responsibility, unlike relationships of contractual obligation, look beyond present activities to what these will mean for the relationship long-term. Relationships of mutual responsibility also look outwards to others, seeking alignment of effort in a network of action.

By balancing initiatives to mobilise change with willingness to let things evolve, staff and management committees allow the intention emergent in relationship to *find* its way into action. This approach assumes that people want to act responsibly, are willing to initiate new action and are capable of learning as they go. It is informed by ideals of participation, but it is also a pragmatic adaptation to the realities of organising voluntary action with community members. Landholders are headstrong and resourceful people who do not take kindly to attempts to impose solutions on them. Whatever the success of their advocacy and activism, the self-organisation sponsored by Landcare Network staff and committees of management makes available an approach to governance that other levels of governance can draw upon, if they choose to.

This constitutes a significant influence in the NRM governance regime. While the findings confirm the dominance of a discourse of management that limits adaptive capacity, they also reveal a governance practice that supports self-organisation, and a community of practice aware of its distinctive discourse and rethinking how to respond to the dominant discourse. In this, the research adds to our understanding of the ways in which environmental governance can be changed and adaptive capacity strengthened.

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